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Home Economics Research Report No. 54

Nutrient Content of the U.S. Food Supply, 1909-97

Abstract

This report presents historical data on the nutrient content of the U.S. food supply. The data and trends presented in this report are invaluable for monitoring the potential of the food supply to meet nutritional needs; examining relationships between food supplies, diet, and health; and examining dietary trends of Americans. Additionally, food supply nutrient estimates reflect Federal enrichment and fortification standards and technology advances in the food industry and contribute to the Federal dietary guidance system. As such, these data are of interest to agricultural policy-makers, economists, nutrition researchers, and nutrition and public health educators.

Data are provided for food energy and the energy-yielding nutrients—protein; carbohydrate; and fat—as well as for total saturated, monounsaturated, and polyunsaturated fatty acids; cholesterol; dietary fiber; 10 vitamins; and 9 minerals. Included are estimates of quantities of food energy and nutrients per capita per day for the years 1909 through 1997. New to this report are nutrient estimates for dietary fiber, selenium, and sodium. Additionally, nutrient estimates are provided for 19 individual fatty acids for the years 1980 through 1997. Estimates of percentage contributions of nutrients by major food groups and quantities of food available for consumption are provided for selected years for all nutrients and dietary components, except for the 19 individual fatty acids.

In 1997, food energy levels were at 3,800 kilocalories, a level stable since 1994. This level reflects higher levels of macronutrients, principally fat, in 1997 than in 1909. Cholesterol levels were lower in 1997 than in 1909, reflecting the decreased use of animal fat but mostly the decline in egg use. The level of carbohydrate over the series generally decreased, but beginning in 1996, it was slightly higher than in 1909. This reflects the trend toward increased consumption of grain products and sugars and sweeteners in more recent years.

Levels for most vitamins and minerals were higher in 1997 than in 1909. Higher levels of thiamin, riboflavin, niacin, and iron reflect Federal enrichment standards and the greater use of enriched grain products. The higher vitamin A level reflects fortification of ready-to-eat breakfast cereal, margarine, dairy products, and miscellaneous foods with vitamin A, as well as the increased availability of vegetables high in vitamin A: such as broccoli and carrots. The higher carotene level is also linked to the increased use of these vegetables. The higher vitamin C level in 1997 was due to increased fruit availability, especially citrus fruits since the early 1900's. The higher vitamin E level in 1997 reflects the greater use of vegetable fats and oils and is associated with increases of poly-unsaturated fatty acids. Higher calcium and phosphorus levels in 1997 reflect the increased consumption of lowfat milk, cheese, yogurt, and other dairy products, such as dairy desserts. Higher sodium levels indicate the availability of more processed foods, such as cheese and canned vegetables.

In 1997, availability of copper and selenium were similar to that in 1909. Levels for vitamin B_{12}, potassium, and dietary fiber were lower in 1997 than in 1909, but over the series, met or exceeded current recommendations for a healthy diet on a national basis. The lower level of vitamin B_{12} in 1997 was due to the decreased consumption of eggs and organ meats, while the lower level of potassium reflects lower consumption of plant foods, fresh potatoes, in particular. The lower level of dietary fiber in 1997 was attributable to decreased consumption of grains, fresh vegetables (mainly potatoes), and non-citrus fresh fruits since 1909.

This publication is an update of Home Economics Research Report No. 53, "Nutrient Content of the U.S. Food Supply, 1909-94," issued in 1997. It includes revised estimates for the years 1909 through 1994 as well as new estimates for 1995 through 1997. This publication supersedes all previous publications on the Nutrient Content of the U.S. Food Supply.

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Nutrient Content of the U.S. Food Supply, 1909-1997

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Nutrient Content of the U.S. Food Supply, 1909-97

Introduction

The Nutrient Content of the U.S. Food Supply is a historical data series, beginning with 1909, on the amounts of nutrients per capita per day in food available for consumption.[1] Per capita estimates are made for food energy and the energy-yielding nutrients—protein; carbohydrate; and fat—as well as for total saturated, monounsaturated, and polyunsaturated fatty acids; cholesterol; dietary fiber; 10 vitamins; and 9 minerals. Because the conceptual basis for measuring foods has remained the same since its inception, trend comparisons can be made among different years.

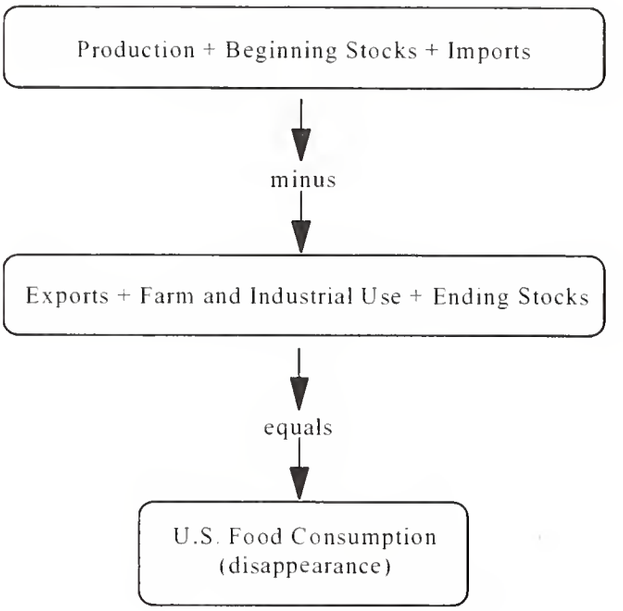
Food supply nutrients were first estimated in the early years of World War II (WWII) to assess the nutritive value of the food supply for civilian use in the United States and to provide a basis for international comparisons with the food supplies of our allies. Since then, these estimates have been updated periodically (*9,31,40,44*) to reflect incorporation of more recent food composition data, the release of updated per capita commodity values, advances in technology, and changes in fortification policy and marketing practices. As in the early years, per capita nutrient estimates are used to assess the nutritional value and adequacy of the food supply to meet the nutritional needs of Americans. However, the purpose of these data goes beyond assessing the food supply for sufficient nutrients to prevent the nutrient-deficiency diseases of the 1940's and 1950's. Currently, food supply nutrients are closely linked to food and nutrition policy, with prominence in areas related to nutrition monitoring, Federal dietary guidance, fortification policy, and food marketing strategies.

Purpose

Food supply per capita nutrient estimates play a key role in nutrition monitoring activities. The estimates are needed to monitor the potential of the food supply to meet the nutritional needs of the U.S. population, as well as to examine historical trends and to evaluate changes in the American diet. These estimates provide unique and essential information on the amount of food and nutrients available for human consumption in the United States. Accordingly, the U.S. food supply series is one of the five major components of the National Nutrition Monitoring and Related Research Program (NNMRRP) established by the National Nutrition and Related Research Act of 1990. This program comprises a system of inter-connected Federal and State activities that monitor the dietary, nutritional, and nutrition-related health status of Americans as well as the relationship between diet and health, including factors that influence dietary and nutritional status (*5*).

[1]U.S. food consumption is based on records of supply and utilization of commodity flows from production to end uses. Data on the amount of food available for consumption are obtained from USDA's Economic Research Service (fig. 1).

Figure 1. Estimating U.S. food consumption



Source: USDA, Economic Research Service (30).

Food supply nutrient per capita values are important dietary indicators because they measure the capacity of the food supply to satisfy the nutritional needs of the U.S. population. These values, however, represent the amount of nutrients in foods that disappear into the marketing system. They are greater than what individuals actually consume because losses from edible food parts, resulting from trimming, cooking, plate waste, and spoilage, are not accounted for in these estimates.

In a recent study by the Economic Research Service (ERS), food losses were estimated by applying loss factors, derived from published studies and discussions with commodity experts, to the amount of food available for consumption in the United States (*15*). Losses from the edible food supply were estimated at the retail, food service, and consumer levels, ranging from 1-2 percent at the retail level to 16-32 percent at the consumer level. While estimates of these losses are tentative because of a number of limitations in the published studies on which the estimates were based, (*15*), they do help us account for the edible food supply as it moves through the marketing system. As such, the nutrient estimates in this report overestimate nutrients actually ingested, because adjustments have not been made to individual food commodities to account for food losses from the farm gate to the table. Furthermore, these nutrient estimates represent averages for the entire population and do not account for unequal distribution of food, specific dietary needs, or dietary selection by individuals. With these two limitations, food supply nutrient estimates are more appropriate as indicators of trends of nutrient availability over time on a per capita or national basis than as absolute levels of intake by individual Americans.

In support of Federal dietary guidance and nutrition monitoring activities, food supply nutrient data are important to agriculture and nutrition policymakers when nutrient goals for Americans are translated into goals for food production and supply levels. Nutrient goals have historically been based on the Recommended Dietary Allowances (RDA) (*26*) and are specific for gender-age groups. With the release of the Dietary Reference Intakes (DRI) for bone-related nutrients, the B-vitamins, and antioxidant nutrients (specific for life cycle stages), these nutrient goals are being reassessed (*12,13,14,52*). Over the years, a nutritionally adequate food supply has been linked to providing sufficient energy, macronutrients, and micronutrients to meet the nutritional needs of the U.S. population. More recently, the emphasis has shifted towards the role of these nutrients in maintaining health and decreasing risk for chronic diseases. To ensure that sufficient nutrients are available to the whole population, the United States must have nutrient levels in the food supply that exceed recommended intakes because these estimates do not completely adjust for the edible and nonedible food losses from agricultural production to the consumer's table.

Also, food supply nutrients reflect developments in the marketing system.[2] For example, more money but less time to buy food, prepare it, and eat it in many American households has made convenience one key to successful food production in the marketplace (*24*). Health concerns have also become increasingly influential in food choices, particularly over the last two decades. Responding to consumers' desires for convenient and healthful foods, as well as to the directives of Federal dietary guidance, the food industry has reshaped many aspects of the food supply.

Food supply nutrient estimates reflect the food industry's response to Federal dietary guidance and consumer demand for lower fat and leaner products. Many of the production techniques and marketing changes made by the food industry have been responsive to and reflective of dietary recommendations to lower or moderate intake of fat, saturated fat, and cholesterol. Because the data help identify sources of nutrients and food components in the existing food supply, this report is useful to nutrition educators, as well as consumers concerned about their health.

Food supply nutrient data are useful in terms of evaluating the effects of technological and marketing changes on the food supply over time. Technological changes and improved marketing practices have increased the number and variety of foods available that meet consumers' demand for convenient and healthful foods (*37*). Alteration of the food supply may consist of nutrients or dietary components being added or removed. The addition of nutrients to foods through enrichment and fortification has been an effective way to maintain and improve the overall nutritional quality of the U.S. food supply. Because the food supply series measures foods and nutrients over time, the effect of added nutrients for purposes of

[2]Important changes over the years that affect the food supply series are demographic and population shifts, changes in consumer lifestyles, economic conditions, farm policy and programs, food programs, and public policy on food-related issues *(24)*.

enrichment and fortification of basic food commodities can be gauged. For example, nutrient per capita estimates can be used to evaluate the need for and the effect of a fortification policy. Also, a fortification policy has the potential to control or decrease macronutrients and simultaneously increase micronutrients in the food supply by making specific foods more nutrient dense, without increasing calories or fat.

The U.S. food supply series continues to be the major source of U.S. dietary information with which international comparisons can be made. The methodologies used to estimate foods and nutrients available for consumption in the United States are similar to those used by the Food and Agriculture Organization of the United Nations for other countries. Both methodologies are based on the concept of food balance sheets, which include data on the supply and utilization of food. Thus, these data can be used to compare the U.S. diet with diets of other countries.

Food supply nutrient per capita values may be used by researchers to explore the relationships between food and nutrient availability and nutrient-disease associations. Epidemiological studies examining these relationships are possible because the methodology used to estimate the per capita values across countries and over time is consistent (*16,17,18,20,21,25,32,34,35,36*). Thus, researchers are able to examine diet and disease relationships on a comparative basis, on a time-series basis, or both.

Methodology

The nutrient content of the food supply is calculated by using data on the amount of food available for consumption from USDA's Economic Research Service (ERS) and information on the nutrient composition of foods from USDA's Agricultural Research Service (ARS). Estimates of per capita consumption for each commodity (in pounds per year) are multiplied by the amount of food energy and each of 29 nutrients and dietary components in the edible portion of the food. Results for each nutrient from all foods are totaled and converted to amount per capita per day.

Food Consumption Estimates

Annually ERS calculates the amount of food available in the United States[3] for consumption on a per capita basis (*30*). The U.S. food supply series, which measures national consumption of several hundred basic commodities, is based on records of commodity flows from production to end uses (fig. 1). This flow involves the development of supply and utilization balance sheets for each major commodity from which foods are produced. Total available supply is the sum of production, beginning inventories, and imports. These three components are either directly measurable or are estimated by Government agencies.

[3]ERS provides information for most foods. Fish and shellfish data used in the food supply series are provided by the National Marine Fisheries Service of the Department of Commerce.

The food available for human use reflects what is left from available supply after deducting exports, industrial uses, farm inputs, and end-of-year inventories. Human food use is not directly measured or statistically estimated. Instead it is a residual component after subtracting other uses from the available total supply. The availability of food for human use represents disappearance of food into the marketing system, and it is often referred to as food disappearance. Food disappearance measures food supplies for consumption through all outlets—at home and away from home. Per capita food use, or consumption, is calculated by dividing the total annual food disappearance by the total U.S. population, including the armed forces overseas on July 1.

Estimates of consumption (disappearance) are prepared at two levels for many commodities: the primary weight and the retail-equivalent weight. The basic measurement is at the primary distribution level, which is dictated for each commodity by the structure of the marketing system and the availability of data. For some commodities, such as eggs and produce, measurement is at the farm gate. For most processed commodities, measurement is at the processing or manufacturing plant. Once the primary level of distribution has been selected, quantities of all other components in the balance sheet for that commodity are converted to the primary-weight basis by using appropriate conversion factors. For example, because the primary distribution level for red meat is the slaughter plant, all quantities are converted to carcass weight.

ERS converts food consumption from primary weight to a retail-weight equivalent, using conversion factors that allow for additional processing, trimming, shrinkage, or loss in the distribution system. Subsequent losses that occur after the retail level, such as in preparation and cooking in the home or food-service establishments, are not considered. Therefore, the amount of foods available for consumption exceeds that which is actually ingested by individuals.

The food supply includes a relatively small number of foods—about 400—because foods are measured as primary commodities (e.g., sugar, flour, and vegetables) before they are combined with other foods into mixtures or finished products, such as frozen and canned entrees, soups, and baked goods. Thus, it is possible to account for the entire supply of food, whether the food is used by restaurants, institutions, fast-food outlets, or homes.

Over the years, changes in the use of certain foods and in the availability of data have made it necessary to measure food use at different points in the marketing system. For example, before 1960, potato use was reported only on a fresh basis, which included processed forms converted to their fresh equivalent weight. However, because of increased use of processed potato products since 1960, potato consumption is now reported on both bases: fresh (farm-weight) and processed (retail-weight). For example, consumption of processed potatoes in canned, frozen, dehydrated, or chip form is measured by using a conversion factor to report the farm-weight equivalent of fresh potatoes used to produce these foods. The nutrient values are adjusted according to their various forms to maintain comparability throughout the series.

Because of data limitations, some commodities, such as salad and cooking oils and fish, are reported as separate categories. However, because individual foods within these aggregate categories can vary greatly in their nutrient composition, both unpublished and published data for specific foods were used to reflect more accurately specific nutrients within each category. For example, nutrient estimates for salad and cooking oils were estimated using USDA production and import and domestic consumption data for individual oils (*10,43,46*). Similarly, data from the National Marine Fisheries Service (NMFS) were used to estimate nutrients for specific categories of fish—fresh/frozen fish, canned and cured finfish, and canned shellfish—based on their lipid content.

Beginning in the 1960's, consumption of produce from home gardens has been measured by using data from USDA's decennial food consumption surveys as benchmarks. Estimates for years between the decennial surveys were interpolated from changes in proportions of households with gardens. These estimates were based on data from National Gardening Surveys of the National Gardening Association. ERS provided data on home garden produce prior to the 1960's.

Because of data losses since 1981, ERS discontinued estimates for a number of commercially produced fresh and processed fruits and vegetables. These data losses included the loss of national production estimates for a number of fresh vegetables from USDA's National Agricultural Statistics Service (NASS) between 1981 and 1992, the loss of industry-supplied canned stock data in the late 1980's, and the underestimate of U.S. fresh fruit and vegetable exports to Canada during the 1980's. To overcome these important commodity data losses, ERS generated estimates of national production for vegetable and fruit commodities dropped from the NASS program in the 1980's and coverage overall (*30*). Efforts by ERS have made it possible in this report to calculate more accurate nutrient estimates for a number of fruits and vegetables whose per capita estimates were carried forward with 1980's data in previous reports.

The estimates of the nutritive value of food available for consumption may not include the total supply of nutrients. For example, quantities of phosphorus contained in carbonated soft drinks are not included. The nutritive content of baking powder, baking soda, yeast or dough conditioners, vitamin and mineral preparation, and calories from alcoholic beverages are excluded.

Food Composition Data

Food composition data used to estimate the nutrients available in the food supply were obtained from the Primary Nutrient Data Set (PDS) containing about 3,000 foods and their nutrient profiles and USDA's Nutrient Database for Standard Reference (*39*). The nutrient database was developed by the ARS's Nutrient Data Laboratory (NDL) for use with the 1994-96 Continuing Survey of Food Intakes by Individuals (CSFII). In addition, food specialists in NDL developed nutrient profiles for unique items for use with food supply calculations. Food values are based primarily on laboratory analysis. If laboratory values are not available, values are imputed from data for other forms of the same food or from data for similar foods.

Nutrients added to foods commercially through fortification and enrichment are estimated. Included are iron, thiamin, riboflavin, niacin, and folate added to flour and cereal products;[4] the vitamin A added to margarine, milk, milk extenders, and cereals; vitamin B_6 added to cereals, meal replacements, and infant formulas; vitamin B_{12} added to cereal; vitamin C added to fruit juices and drinks, flavored beverages, dessert powders, milk extenders, and cereals; and zinc added to cereals.[5]

Estimates of the nutrient content of the food supply exclude nutrients from the inedible parts of foods, such as bones, rinds, and seeds, but include nutrients from parts of foods that are edible but not always eaten, such as the separable fat on meat. With the exception of canned fruits and vegetables for which nutrient data account for losses in processing, food supply estimates include nutrients that may be lost in processing, marketing, or cooking. (For information about estimating and addressing food loss from the U.S. food supply, see Kantor, 1997.)

All of the nutrient values per capita dating back to 1909 are recalculated with the most up-to-date food composition values available. Hence any changes in these values due to improvements in laboratory analysis and sampling practices are accounted for over the entire series. Data on selenium used in this report, however, may not truly reflect the selenium content of food supply commodities over the series, especially for the earlier years because data on selenium reflect the nutrient content of today's food supply. The selenium content of plants, particularly cereal grains, is strongly influenced by the biologically available selenium in the soil in which plants grow, a factor difficult to account for over the series.

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[4]Beginning January 1, 1998, all enriched grain foods were fortified with folic acid. The 1909-97 folate estimates from flours do not reflect this fortification policy. Folate estimates from ready-to-eat breakfast cereals for this period reflect folate fortification policy prior to the 1998 ruling.

[5]Calcium is not included as a fortificant. While some calcium fortification is added to ready-to-eat breakfast cereals, the amount is such that an appropriate estimate cannot be made.

Also, nutrient values per capita reflect changes over the years in the actual foods due to technological developments and marketing practices. For example, fat content of poultry and pork has varied over the years because of changes in breeding and feeding practices by the poultry industry and the production of leaner hogs. Also, changes in the marketing practices of beef (as well as pork), such as the closer trimming of fat from one-half inch to one-eighth inch in certain cuts, contribute to changes in nutrient values over the series. Otherwise, for most foods in the food supply, nutrient composition has not changed dramatically over this century.

Food Supply Methodologies—Commodity Specific

The databases used to calculate food supply nutrient estimates are continually evolving. New sources of information are applied to food supply methodologies to reflect market conditions and technological advances better. Selected methodologies are discussed to provide information pertinent to the update of nutrient estimates for 1909-97.

Meat, Poultry, and Fish

Red Meat

The red meat industry has altered a number of marketing practices in the past three decades, with ramifications on the U.S. food supply series. Specifically, feeding practices, genetic and animal management practices, meat handling, and merchandising practices have been modified to improve production efficiency and to respond to consumers' health concerns about dietary fat and red meat (*2,27*).

Resultant changes in the quantity and quality of red meat available for consumption in the food supply required that adjustments be made in the nutrient databases beginning with the year 1955. These adjustments compensate for quantity overestimates previously reported for the mid-1950's to the present and reflect up-to-date nutrient information. Overall, closer trimming of fat and more bone removal have resulted in a lower ratio of available carcass for retailers and consumers.

A conversion for red meat is used to calculate the dressed-meat equivalent of bone-in cuts and boneless retail cuts. In the U.S. food supply series, an assumption is made that a certain percentage of carcass weight (fat, bone, connective tissue, and shrinkage) is removed or lost before the product reaches the retail level.

> *Beef.* Two sets of conversion factors used to calculate beef quantity and nutrient estimates are revised periodically to account for variations in quantity and yield of the product and in marketing practices (*29,33,38*). These conversion factors are based on changes in animal husbandry or technology, marketing practices related to fat and bone at the packer or

retail level, or a combination thereof at a specific period over the series. One factor accounts for specifications related to closer fat trim by packers (carcass-to-wholesale), and the other adjusts for the closer trimming of fat and increased removal of bone by retailers (carcass-to-retail). For beef, Yield Grade is a major consideration in the adjustment in animal composition because the lower the Yield Grade, the less fatty the animal carcass. Also, the current retail practice of fat trim replaces the 1/2-inch trim of the 1970's and 1980's with the 1/8-inch trim of the 1990's.

Pork. For pork, two conversion factors used for carcass-to-retail calculations have been adjusted downward for the series beginning in 1955 to better reflect the changing mix of lean and fat on the carcass and the smaller percentage of carcass available for fat cuts (*3,4*). These factors account for the separation of wholesale pork into lean and fat cuts during processing and exclude fat cuts from the total retail carcass weight. The revised factor for fat cuts was based on bellies' (primarily bacon) percentage yield from bone-in trimmed wholesale cuts (*8*). Since the late 1960's, this yield has decreased and in the 1990's was about one-half that of 1965.

Veal and Lamb. Fewer changes have occurred in the production and marketing of veal and lamb than of beef and pork, but since the early 1990's, many retailers have been trimming lamb products to an 1/8-inch trim and the PDS values used in the lamb nutrient database reflect the leaner cuts of more recent years. Also, carcass-to-retail conversion factors used for veal from the early 1960's have been changed. These factors are more reflective of the cattle industry and more representative of the nutrient contributions from veal to the food supply.

Game. Prior to 1963, ERS provided per capita game estimates. To continue these estimates over the series and to improve the quality of the food supply game data, the National Wildlife Federation collects individual State data on game harvest for calculation of per capita estimates (*28*). Game is divided into one of five categories: Deer, big game (excluding deer), small game, land birds, and water fowl. Carcass weight of each species is determined by using data provided by the individual States, and a weighted average was used for each category. In cases where a State did not provide carcass weight data, weights are based on information from the Wildlife Management Institute (*51*). Harvest data are totaled for a particular year and adjusted based on carcass weight. These estimates are divided by the census population of the animals for that year. Per capita and nutrient estimates have been updated for each of the game categories beginning in 1966.

Fish

Fish production data include fish caught by commercial fishing vessels, non-commercial sources, and aquaculture. Canned and cured fish are processed from fish caught and are counted separately from those that are caught for fresh and frozen distribution. Beginning in 1980, aquaculture began to play a major role in fish production (*47*). Presently, aquaculture provides a significant portion of the fish in the U.S. fish supply, particularly salmon, trout, and catfish species (*48*). Estimates for some fish in the food supply are reported as broad categories that include a number of species based on lipid content. The categories include fatty fish, those containing more than 5-percent fat; lean fish, those containing 5 percent or less of fat; and ground-dwelling fish.

To be more consistent with ERS per capita estimates on fish and new data received from the National Marine Fisheries Service, CNPP has deleted game fish from the food supply series (*19,30*). Therefore, updated per capita estimates of total fish in the food supply may be less than previously reported.

Legumes, Nuts, and Soy

Soy Flour

Per capita values for soy flour (flour and grits) have not been determined by ERS since 1980. Since then, the use of soy flour by the food industry has increased; its availability in natural food stores and some supermarkets has also increased. To account for this increase and to ensure that the data are more reflective of nutrient contributions from soy flour, CNPP revises per capita estimates based on product shipment data from the *Census of Manufactures*, an industrial series conducted every 5 years by the Bureau of the Census (*46*).

Fruits and Vegetables

Fresh Fruits and Vegetables

In the early 1980's, USDA stopped reporting per capita values for many commercially produced fresh and processed fruits and vegetables because national production data were no longer available. However, many of these fruits and vegetables are important sources of several nutrients. To continue monitoring as many of the fresh vegetable and fruit sectors as possible, ERS commodity specialists estimated national production for a number of specific vegetables and fruits by using data from States that continued to collect production information (*30*). These data are reflected in the nutrient contributions to the food supply from these food items.

Vegetable Composites

The nutrient estimates for miscellaneous canned, fresh, and frozen vegetables have been revised since the last report. These nutrient estimates are based on composite vegetable data—a mix of vegetables reflective of a variety of vegetables consumed during specific years. Historically, nutrient data for these composites were calculated by hand and entered into the food supply nutrient database with no direct link to the Primary Data Set (PDS). The new composites provide better estimates of consumption for canned miscellaneous vegetables than previously reported. Each vegetable in the composite is directly linked to the PDS, thereby bringing the nutrients associated with a particular vegetable directly into the nutrient database.

Fruit Juices

Beginning with 1991 per capita estimates, ERS no longer distinguished between the final product forms of juices, such as frozen or canned orange and grapefruit juices. Since then, per capita juice has been reported as merely juice, gallons per capita. Using ERS supply data, CNPP developed procedures to distinguish between the frozen and canned forms of juices in the food supply; this ensures consistency of data and reflects nutrient contributions from these commodities (*41,42*).

Breakfast Cereals

The reporting of per capita consumption of breakfast cereals has changed over the food supply series. Cereal quantities, based on type of cereal, have been adjusted and nutrient composites developed to best reflect the nutrient content of the cereals as reported by ERS. For example, from 1909 to 1965, ERS reported per capita estimates for wheat and corn cereals as individual items but did not account for cooked and ready-to-eat quantities separately. Beginning in 1966, ERS accounted for ready-to-eat and cooked corn and wheat cereals separately.

Ready-to-Eat Cereals

From 1966 to 1973, the percentage contribution of each cereal (wheat or corn) was determined and applied to the ERS per capita estimates for total ready-to-eat cereal and subsequently linked to nutrient data specific to these two cereals. Beginning in 1974, ERS quantity data on ready-to-eat cereal were directly linked to a composite reflective of a number of cereals: Wheat, corn, oat, rice, and mixed grain. The nutrient contribution from each of these cereals in the composite is based on cereal production data from the *Census of Manufactures*, an industrial series conducted every 5 years by the Bureau of the Census (*45*).

Cooked Cereals

Beginning in 1966, total per capita estimates of cooked cereals were reported by ERS. Nutrient estimates reflective of the total wheat, oat, mixed grain, and instant cereals are based on cereal production data from the *Census of Manufactures* (*45*).

Food Fortification

The estimation of the nutritive value of the U.S. food supply requires information on the extent of enrichment and fortification of foods. With the exception of fortification data for white flour and margarine, food supply fortification had not been updated since 1970. To provide more accurate and up-to-date estimates of nutrients from fortification, CNPP revised food supply fortification files in this report to reflect historical and current fortification policy.

CNPP consulted with members of the food industry, trade associations, fortification policy/food regulatory staff at the Food and Drug Administration (FDA), academic experts in food science and nutraceuticals, and chemical suppliers of added nutrient formulations. The FDA provided labeling data from the 1997 Food Label and Package Survey. This survey contains valuable information on enriched and fortified food items and the amount of fortification as a percentage of Daily Values (as indicated on the Nutrition Facts Label). These data were used to establish or verify fortification levels of several food supply commodities, such as white flour, breakfast cereals, rice, pasta, and margarine. Additionally, results from a survey of enrichment of corn products conducted in cooperation with the North American Millers' Association contributed similar information on corn meal and grits. For other food commodities (e.g., fruit drinks and juices, individual dairy products, and meal replacements), adequate information does not exist to estimate added nutrients or fortification.

Food supply fortification files were revised using two types of fortification files: historical files and dynamic or active files. The development of these two files accounts for nutrient fortification over the series without risk of double counting, because historical fortification data are distinctly separated from current fortifications. Historical files contain estimates of added nutrients per year and nutrients for a specific commodity or commodity category. Estimates of added nutrients were derived from a special survey designed by the U.S. Department of Agriculture and included as a component to the 1970 census, conducted by the Bureau of the Census. Absolute amounts of nutrients added by manufacturers and distributors of vitamins and minerals were directly entered into the food supply fortification file for a specific commodity. While no link is made to the commodity's quantity data, nutrient values from the historical fortification file are accounted for in the nutrient totals and the nutrient contributions by food group or commodity. Some food commodities have only historical files because adequate information does not exist to estimate added nutrients as fortifications. These food commodity categories are dairy products, fruit and fruit juices, and miscellaneous foods. Otherwise, historical fortification files generally contain added nutrient data from the date of initial enrichment (or fortification) of a commodity to 1969 (for rice, corn meal/grits, and margarine) and to 1973 (for ready-to-eat breakfast cereals, white flour, and semolina). In all cases, historical fortification data are included in the food supply nutrient estimates for a particular year.

Dynamic or active fortification files link commodity quantity data directly to nutrient data for a specific year based on enrichment/fortification policy for that year. Food commodities with active fortification files are rice, corn meal/grits, and margarine from 1970 and for ready-to-eat breakfast cereals, white flour, and semolina from 1974.

The update of these fortification data and the creation of active fortification files affect both food supply nutrient totals per capita per day and the percentage contribution from these nutrients. As a result, nutrient estimates and their percentage contribution by food group in this report may be greater than previously reported for those nutrients added to foods through enrichment or fortification. For a list of nutrients added as fortifications by food commodity, see section on food composition data.

Spices in the U.S. Food Supply

The United States is the world's largest spice importer and consumer, as well as a growing producer. The rise of both imports and domestic production reflects growth in spice demand due to population growth, increased use of spices to compensate for less salt and lower fat levels in food, and heightened popularity of ethnic foods from Asia, Latin America, and Mediterranean cultures (*1,30*).

The United States imports more than 40 separate spices, with the 7 largest spice imports (vanilla beans, capsicum, black and white pepper, sesame seed, cinnamon or cassia, mustard and oregano) accounting for more than 75 percent of the total annual value of spice imports. What the United States does not import for consumption, it produces. In 1997, domestic production of spices accounted for 24 percent of the total supply and utilization. Domestic production was dominated by mustard seed and dried chili peppers (*30*).

Per capita spice consumption of individual spices, miscellaneous spices, and other spices in the food supply reached a record high of 2.9 pounds per person per year in 1996 and 1997, more than a pound above 1970 and 1980 levels.[1] In the early 1980's, about 60 percent of spices consumed in the United States were used by retail consumers and the remainder by the food processing or food service sector. Since the early 1990's, these shares have been reversed. Rapid expansion of fast-food restaurants in recent years explains part of the growth in food processing or food service use. Another trend in food processing is the growing use of spice oleoresins (a concentrated form of spices), which are cleaner and easier to disperse in the manufacture of products containing spices.

Although spices are consumed in small amounts, they are concentrated and therefore nutrient dense, contributing vitamin A, carotene, vitamin B_6, calcium, iron, magnesium, and zinc to the food supply. From 1970 to 1997, spices contributed from 3 to 5 percent of the carotene available in the food supply. During the same period, vitamin A, vitamin B_6, and calcium from spices doubled or nearly doubled. These increases are due to the greater quantity of spices available in the food supply (see table, figs. 1 and 2).

[1]Individual spices in the food supply consists of cinnamon, cayenne pepper, mustard seed, paprika, black pepper, and sesame seed. Miscellaneous spices consist of anise seed, caraway seed, celery seed, clove, coriander, cumin, fennel seed, ginger, mace, nutmeg, allspice, poppy seed, sage, turmeric, and vanilla bean. Other spices consist of fresh basil, ground basil, cardamon, curry, dill seed, fenugreek, bay leaf, marjoram, dried parsley, fresh parsley, rosemary, savory, thyme, spearmint, and oregano.

Nutrient contributions from spices for selected nutrients in the food supply, selected years

Year	Vitamin A	Carotene	Vitamin B_6	Calcium	Iron	Magnesium	Zinc
	----- *Milligrams (RE)* ----		---------- *Milligrams* ----------				
1970	1.1	3.3	0.7	1.0	2.1	1.5	0.8
1980	1.3	3.6	0.8	1.2	2.2	1.6	0.8
1990	2.3	5.7	1.1	1.5	2.3	1.9	0.9
1997	2.2	4.9	1.2	1.8	2.6	2.2	1.0

Figure 1. Percent contributions of vitamin A, carotene, and vitamin B_6 to the U.S. food supply from spices, 1970-97

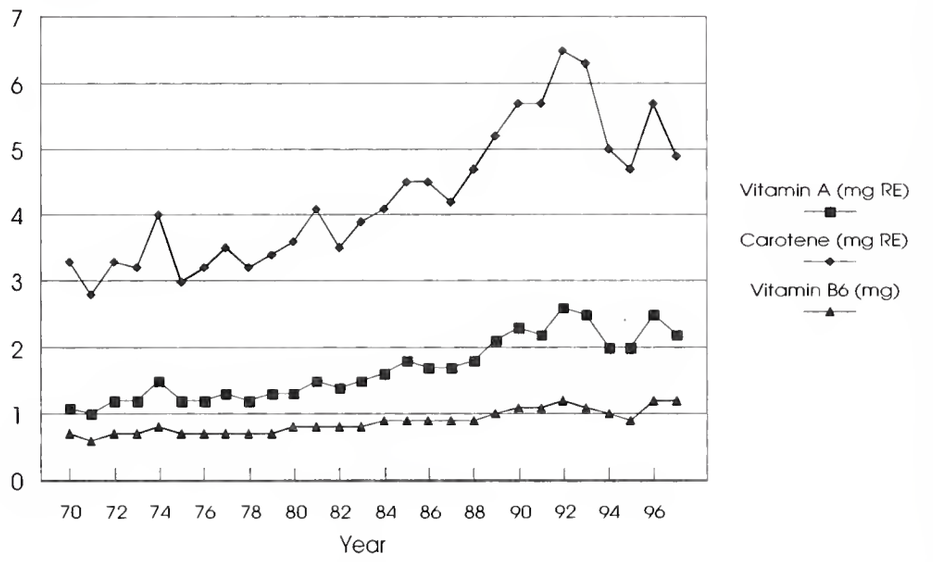
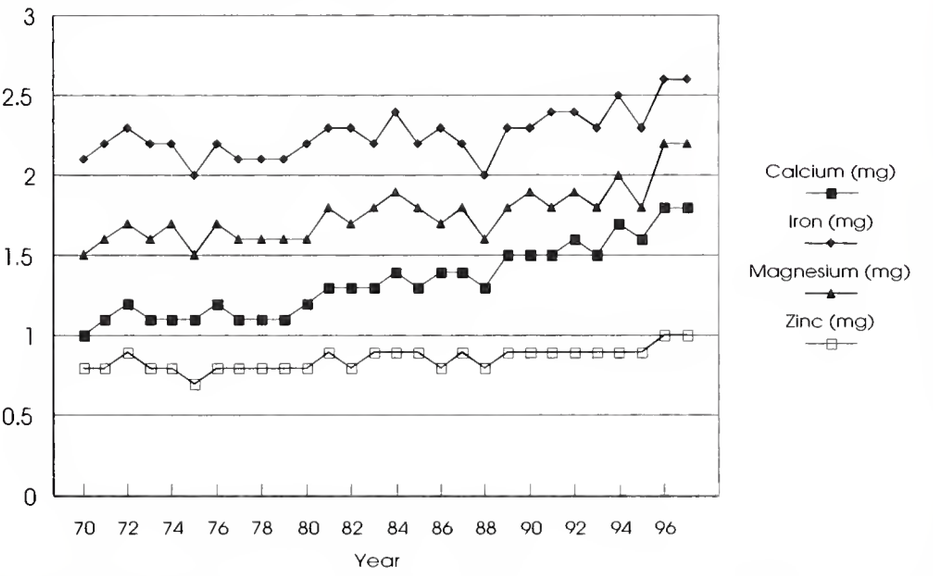


Figure 2. Percent contributions of calcium, iron, magnesium, and zinc to the U.S. food supply from spices, 1970-97



Trends in Availability of Foods and Food Energy and Nutrient Levels, 1909-97

Quantities of Food Available From Major Food Groups

During this century, substantial change has occurred in the American food supply and the nutrients that are available (table 35). Many of these changes are linked to advances in food production and technology, Federal standards for enrichment and fortification, the Federal Dietary Guidance system, and changing consumer preferences creating demand for nutritionally improved foods.

Consumption from the meat, poultry, and fish group reached a record high in 1995 at 236 pounds per capita and remained at this level in 1997. Poultry increased more than fivefold—from 17 to 92 pounds per capita, between 1909 and 1997. In fact, since the early 1970's when the poultry industry began marketing a variety of processed poultry products, such as chicken breasts, thighs and tenders, and luncheon meats, poultry use has almost doubled: 49 pounds per capita in 1970 compared to 92 pounds per capita in 1997. Fish use has increased somewhat, from 11 pounds per capita in 1909 to 15 pounds per capita in 1997, remaining relatively stable since the late 1980's. Red meat continues to be a major part of our diet, but its use is down by about 13 percent from 148 pounds per capita in 1909 to 129 pounds per capita in 1997. Consumption of red meat reached a high of 156 pounds per capita in 1976 when beef supplies were at record levels because of the liquidation of the Nation's beef herd. Consumer concerns about cholesterol and saturated fat, inconsistent quality, and lack of convenience in beef preparation contribute to this negative trend. Egg use has generally declined over the series but has remained stable: about 30 pounds per capita since 1989 (fig. 2).

Legumes, nuts, and soy consumption generally remained stable over the series with somewhat higher levels consumed in the later years, reflecting the increased use of soy products and nuts. Consumption of legumes was highest in the early years of the series and dropped after WWII (fig. 3).

Demand for whole milk has declined, whereas demand for lowfat[7] and skim milks (fat-free or nonfat) and yogurt has increased substantially, particularly in the past two to three decades. Despite this trend toward lower fat milks, the per capita consumption of fluid cream products has increased since the mid-1970's—from 5.0 pounds per capita in 1975 to 9 pounds per capita in 1997. Also, because of the increase in ethnic diversity, the demand for hard cheeses used in pizza making, cheeses used in prepared foods, and the greater variety in processed cheeses, cheese consumption has increased from 4 pounds per capita in 1909 to 31 pounds per capita in 1997 (fig. 4).

The use of grain products has increased since the lowest levels, around 140 pounds per capita, were reached in the early 1970's. However, in 1997 use was considerably lower (at 217 pounds per capita) than the 300 pounds per capita level in 1909. In

[7]Includes reduced-fat and lowfat milks.

Figure 2. U.S. food supply: Meat, poultry, fish, and eggs, per capita per year, 1909-97

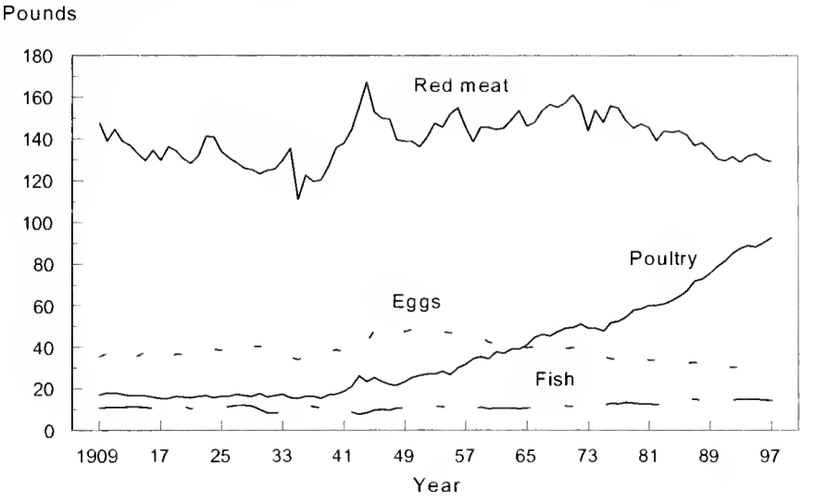


Figure 3. U.S. food supply: Legumes, nuts, and soy products, per capita per year, 1909-97

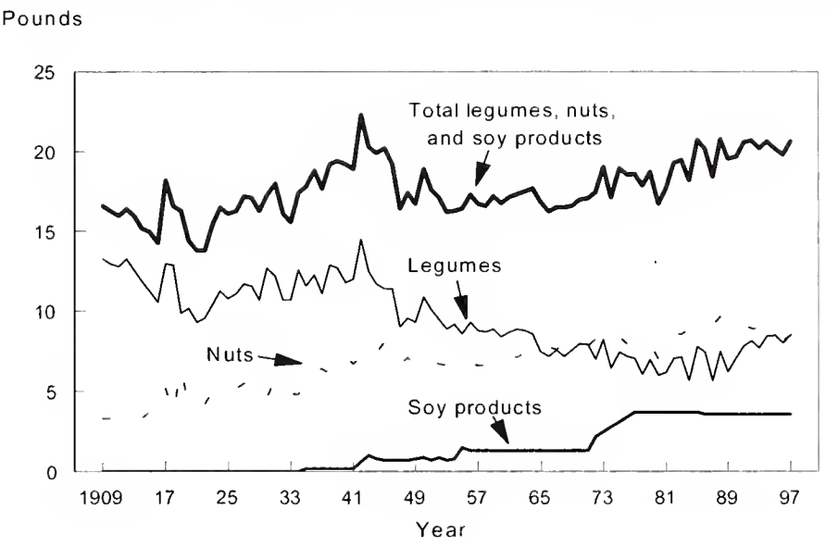
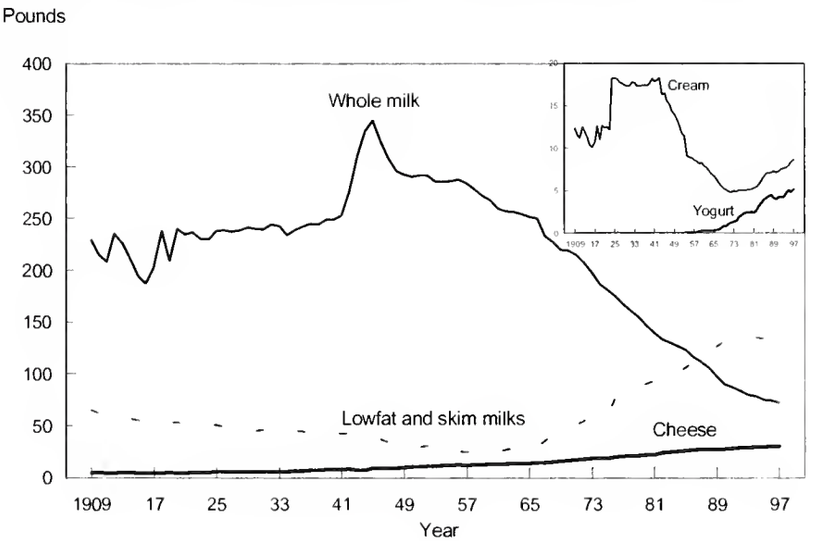


Figure 4. U.S. food supply: Dairy products, per capita per year, 1909-97



contrast, caloric sweeteners have increased in use and are at record-high levels. Shifts within the caloric sweeteners group have also occurred. Over the series, refined sugar has been largely replaced by high-fructose corn syrup, which was at an all-time high in 1997 at 82 pounds per capita (fig. 5).

Vegetable and vegetable juice use is rising and in 1997 was at the highest level since the 1960's but continues to be lower than in 1909. The major reason for an overall decrease in the use of fresh vegetables has been the marked decline—more than one-half—in the use of fresh white potatoes. In 1909, fresh white potatoes provided 188 pounds per capita; in 1997, this value was at 85 pounds per capita. This decline has been slightly offset in recent years by increases in per capita consumption of some fresh commercial vegetables, such as bell peppers, onions, and broccoli. The use of tomatoes and dark-green/deep-yellow vegetables is similar in 1909 and 1997, at 54 pounds for tomatoes and at 35 pounds per capita for dark-green/deep-yellow vegetables (fig. 6).

Fruit and fruit juice use has increased from 173 pounds per capita in 1909 to 228 pounds per capita in 1997. During this time, citrus fruits and juices were major contributors to this increase. Since the mid-1970's, the use of noncitrus fruits and melons has generally increased, with the 1997 quantity the highest since the late 1930's. Overall, increased fruit availability is related to increases in juice consumption and the introduction of a greater variety of fruits, including exotic fruits, into the food supply (fig. 7).

Total fats and oils have increased from 41 pounds per capita in 1909 to 68 pounds per capita in 1997. The 1997 level reflects a 4-pound per capita decrease since 1993 when the level was at a record high of 72 pounds per capita. A shift has occurred from the use of animal sources of fat to vegetable sources because of a substantial increase in the use of vegetable fats, such as margarine, shortening, and oils (fig. 8).

Food Energy

Over the period covered in this report, per capita energy levels have been as low as 3,100 kilocalories and as high as 3,800 kilocalories per capita per day. In 1909, the energy level was 3,500 kilocalories. Energy levels decreased until they reached a low of 3,100 kilocalories in the early 1950's through 1965. Since then, energy levels have generally increased to a high of 3,800 kilocalories in 1993. Levels have continued at this level through the 1990's (table 1, fig. 9).

Three macronutrients—carbohydrate, protein, and fat—can be converted to energy (fig. 10). The energy contribution from carbohydrate decreased from 57 percent in 1909 to 54 percent in 1997. Protein levels in the food supply have consistently accounted for about 12 percent of total energy since 1909. The contribution from fat increased from 31 percent in 1909 to 37 percent in 1997—a slight drop from 38 percent in 1993.

Figure 5. U.S. food supply: Grain products and sugars and sweeteners, per capita per year

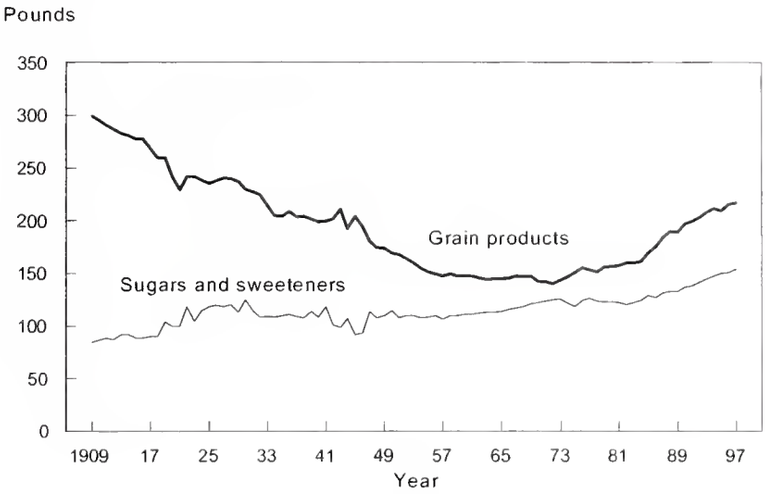


Figure 6. U.S. food supply: Vegetables, per capita per year, 1909-97

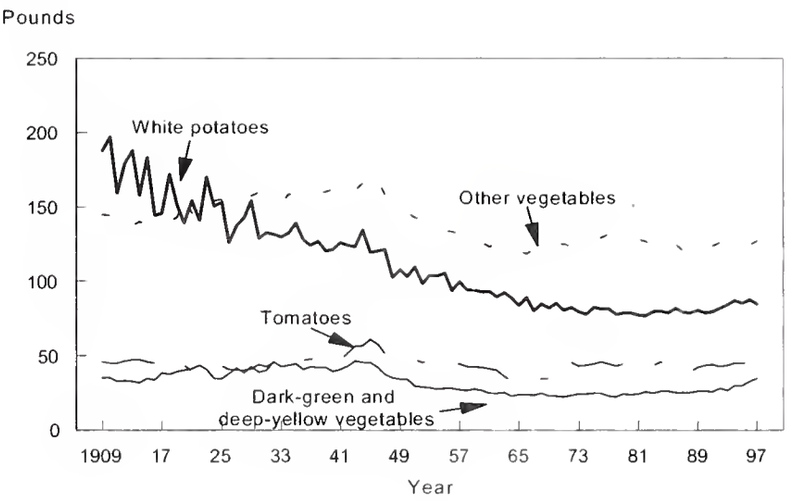


Figure 7. U.S. food supply: Fruits, per capita per year, 1909-97

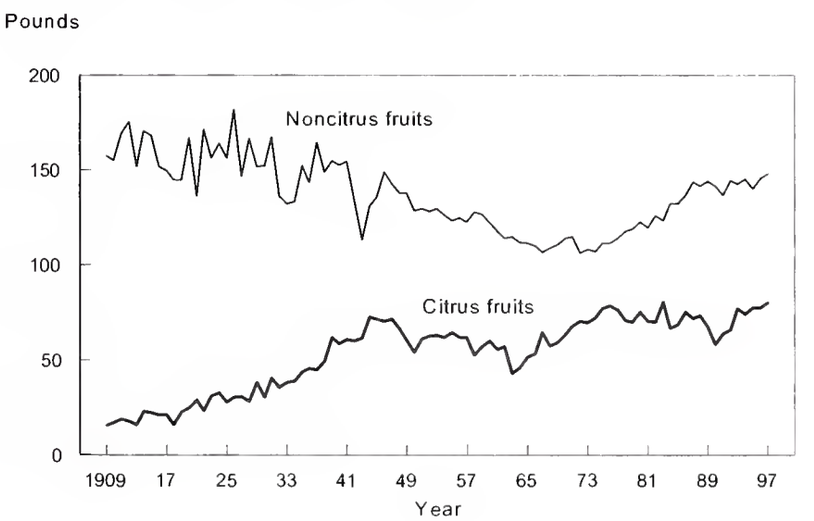


Figure 8. Types of fat in the U.S. food supply

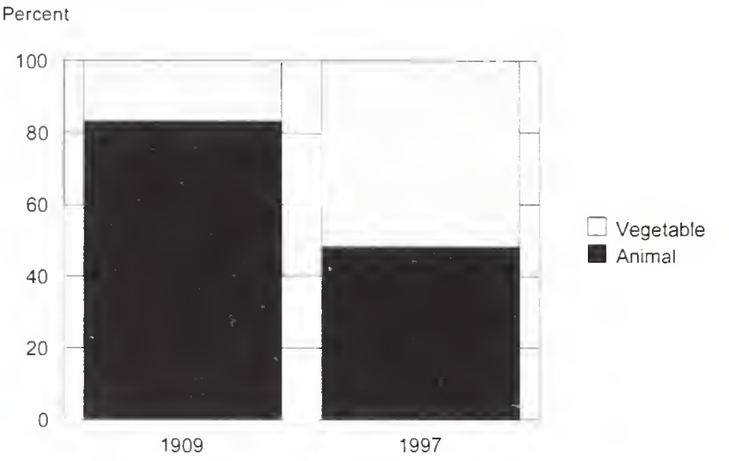


Figure 9. Food energy in the U.S. food supply, per capita per day, 1909-97

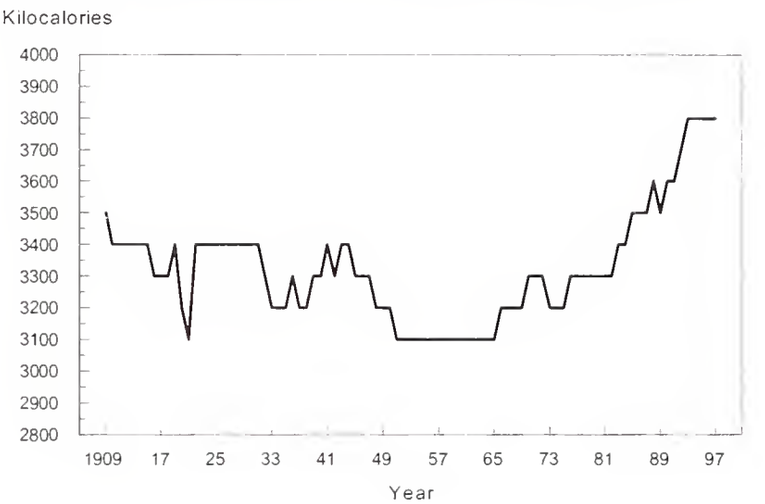
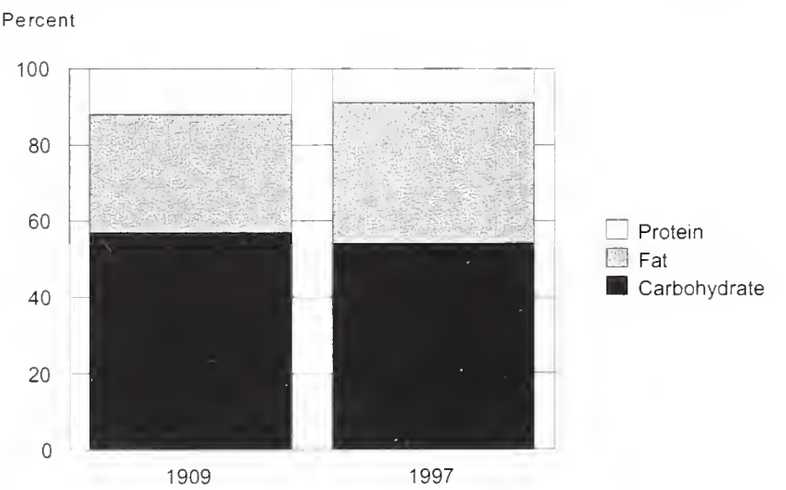


Figure 10. Macronutrient sources of food energy in the U.S. food supply



Although the contribution of various food groups to food energy in the food supply has fluctuated since 1909, grain products have clearly provided a major share. In 1997, grain products provided 26 percent of the total kilocalories available. Both the fats and oils and sugars and sweeteners groups ranked second, each providing 19 percent of the kilocalories; followed by the meat, poultry, and fish group at 14 percent (table 5, fig. 11).

Carbohydrate

The level of carbohydrate present in the food supply decreased steadily from 500 grams per capita per day in 1909 to 374 grams in 1963, its lowest level (table 1, fig. 12). The drop in use of grain products and white potatoes was chiefly responsible for this decline in carbohydrate levels. Since 1963, carbohydrate levels have increased and in 1996 outpaced the 1909 level of 500 by 3 grams. Between 1980 and 1997, carbohydrate levels rose by 25 percent, from 406 grams per capita per day to 509 grams, an increase due to the use of grain products and sweeteners.

Figure 11. Sources of food energy in the U.S. food supply

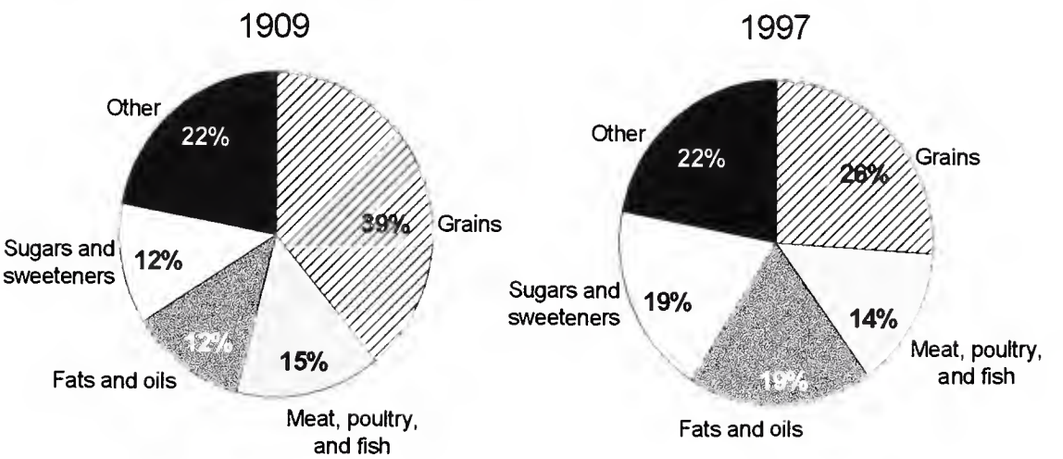
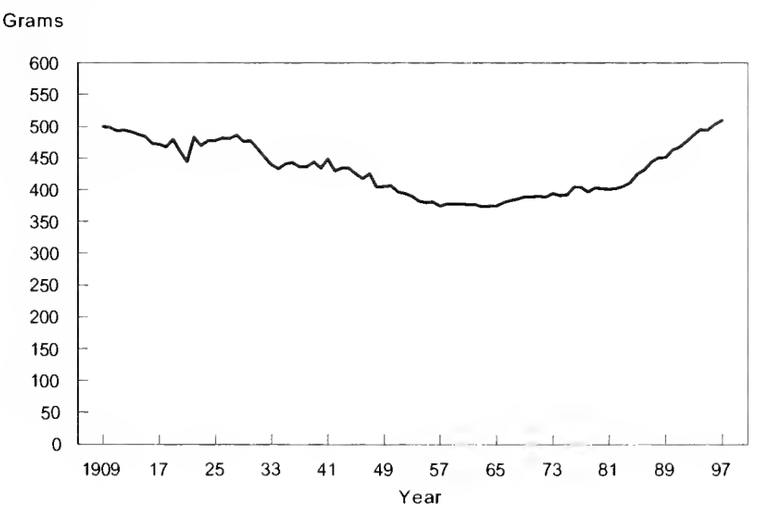


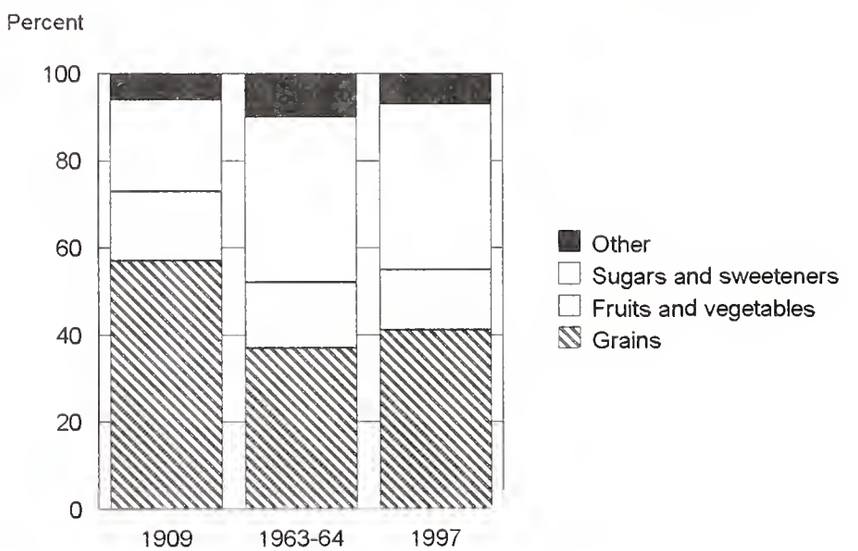
Figure 12. Carbohydrate in the U.S. food supply, per capita per day, 1909-97



Foods derived from plant sources have always contributed most of the carbohydrate available for consumption. Two food groups in particular, grain products and sugars and sweeteners, have been the major sources of carbohydrate throughout the years.

In 1909, grain products provided the highest percentage of carbohydrate in the food supply, about 57 percent, followed by sugars and sweeteners with 21 percent, and fruits and vegetables collectively contributing 16 percent. During 1963-64, when carbohydrate levels were their lowest, the share from grain products dropped to 37 percent, while that from sugars and sweeteners increased to 38 percent. Beginning in the 1990's, grain products have contributed at least 41 percent of the carbohydrate in the food supply. In 1997, sugars and sweeteners remained at the same level as in the mid-1960's, and contributions from fruits and vegetables collectively were at 14 percent, somewhat less than the 1909 level (table 6, fig. 13).

Figure 13. Sources of carbohydrate in the U.S. food supply



The level of dietary fiber in the food supply decreased from 29 grams per capita per day in 1909 to 18 grams in 1963, its lowest level (fig. 14). As with carbohydrates, the drop in use of grain products was chiefly responsible for this decline. Since the 1980's there has been a slow but steady increase in levels of dietary fiber in the food supply. The level of 25 grams per capita per day in 1996 and 1997 is the highest level since WWII when victory vegetable gardens contributed important sources of dietary fiber to the diet (table 4, fig. 14).

The major sources of dietary fiber, not surprisingly, are grains, fruits, and vegetables. In 1909, grain products provided the highest percentage of dietary fiber in the food supply, 51 percent, followed by vegetables at 26 percent and fruits at 12 percent. In 1997, grain products contributed 40 percent, an appreciable drop

from 1909. However, contributions from vegetables and fruits were similar to those in 1909 at 25 and 11 percent, respectively. Also the legumes, nuts, and soy group has made an important contribution to the dietary fiber available in the food supply over the years, ranging from 10 to 14 percent. Contributions from the miscellaneous group increased substantially from 1 percent to 10 percent from 1909 to 1997, due to the increased use of spices, a highly concentrated form of dietary fiber (table 7, fig. 15).

Figure 14. Dietary fiber in the U.S. food supply, per capita per day, 1909-97

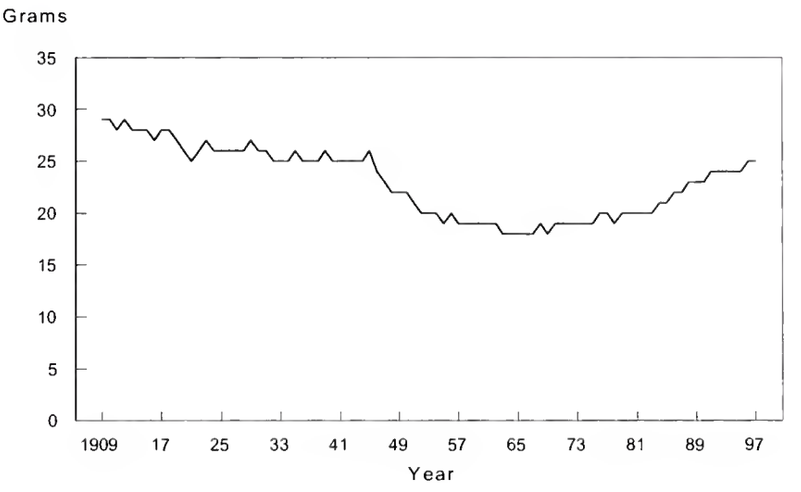
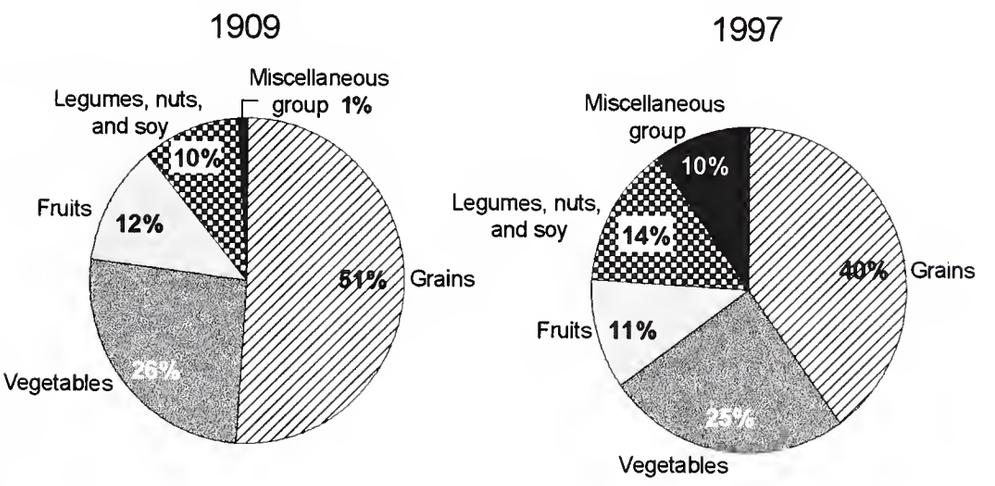


Figure 15. Sources of dietary fiber in the U.S. food supply



Protein

The level of protein in the food supply was higher in 1997 (112 grams) than in 1909 (101 grams). From 1909 to 1935, protein levels gradually decreased until reaching their lowest level (86 grams). During and after WWII, 1943-46, protein levels rose to levels similar to those in 1909. However, by 1950, protein levels declined and remained at pre-Depression levels throughout the 1960's. Since 1970, protein levels have primarily increased, reaching the highest level in 1997 (table 1, fig. 16).

Considerable change has occurred in protein sources since 1909. In 1997, animal sources contributed about 61 percent of total protein; at the beginning of the century, animal and vegetable sources each contributed half (fig. 17).

Figure 16. Protein in the U.S. food supply, per capita per day, 1909-97

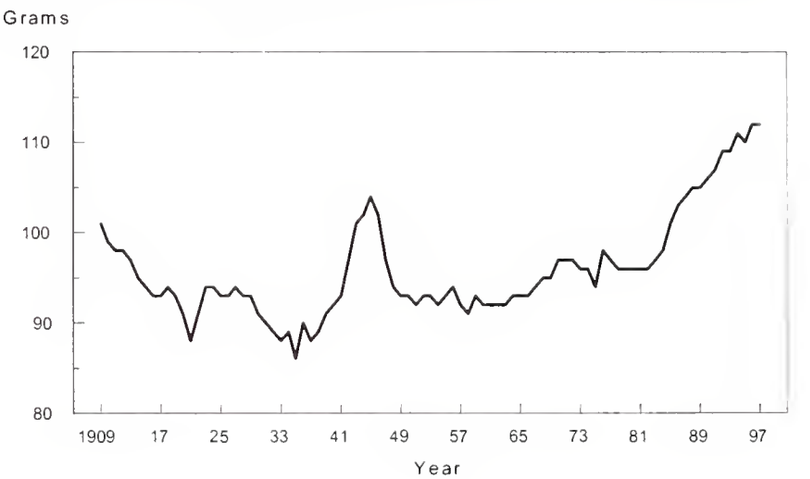
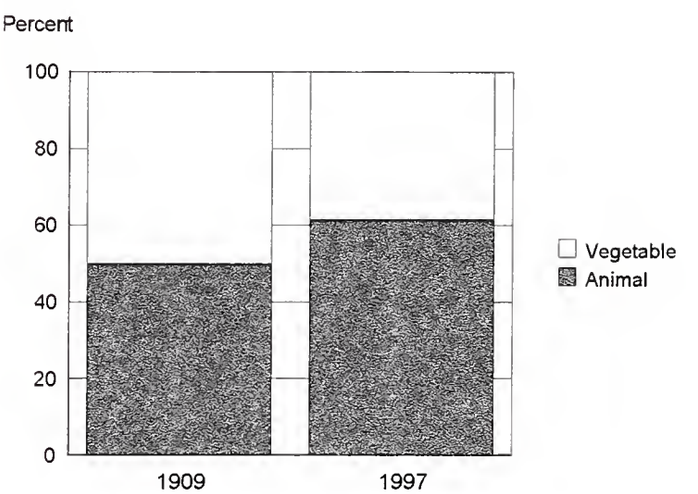


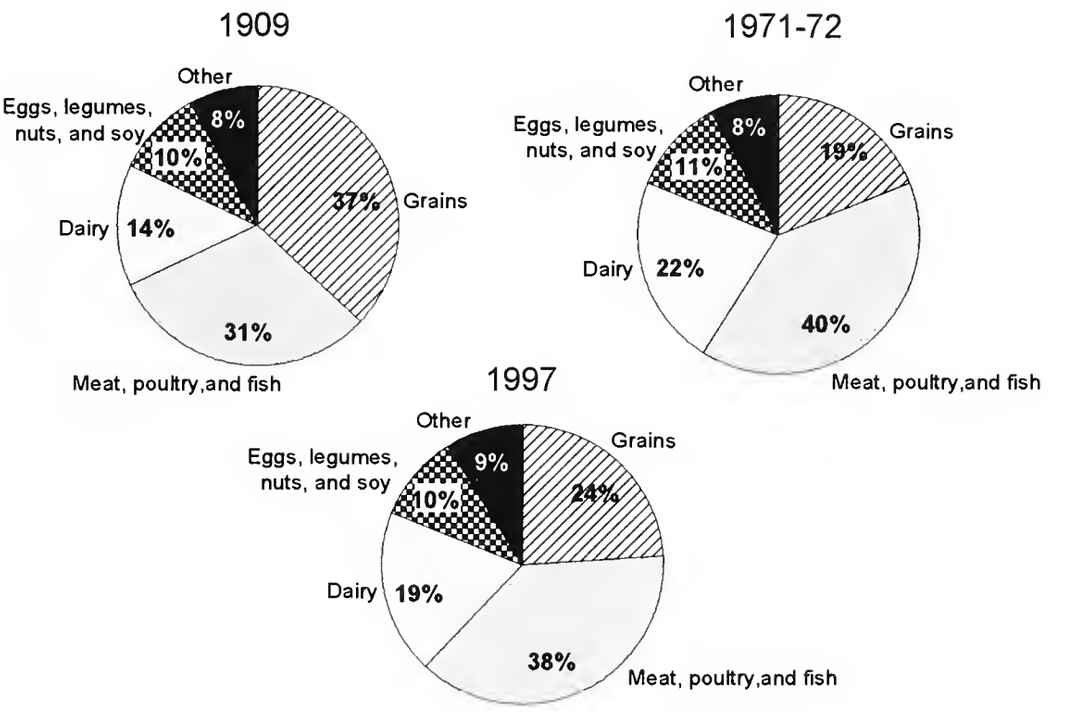
Figure 17. Types of protein in the U.S. food supply



Grain products provided 37 percent of the protein available in the 1909 food supply. This share has fluctuated over the series, with the lowest levels occurring in the 1970's. Since 1939, grain products have been replaced by the meat, poultry, and fish group as the primary source of protein in the food supply. In 1997, the meat, poultry, and fish group contributed 38 percent and grain products contributed 24 percent of the protein available in the food supply (fig. 18). Within the meat, poultry, and fish group, red meat has consistently provided the highest share of protein. However, since 1971, red meat's contribution has primarily decreased. Poultry, on the other hand, has made a greater contribution to protein. Beginning at 2 percent in 1909, protein availability from poultry has increased almost sixfold: to 14 percent by 1997 (table 8).

Historically, dairy products have supplied around one-fifth of the protein in the U.S. food supply. Actual protein contribution from dairy products was highest at 23 percent in the 1950's and early 1960's, and lowest at 19 percent in the late 1990's. This change reflects a decrease in the total use of fluid milks and changing trends for individual milk and milk products over time.Whole milk remained a relatively stable source of protein from 1909 through the 1960's; thereafter its use began to decline. At that time, the use of lowfat milk, yogurt, and hard cheeses began to increase (table 8).

Figure 18. Sources of protein in the U.S. food supply



Fat

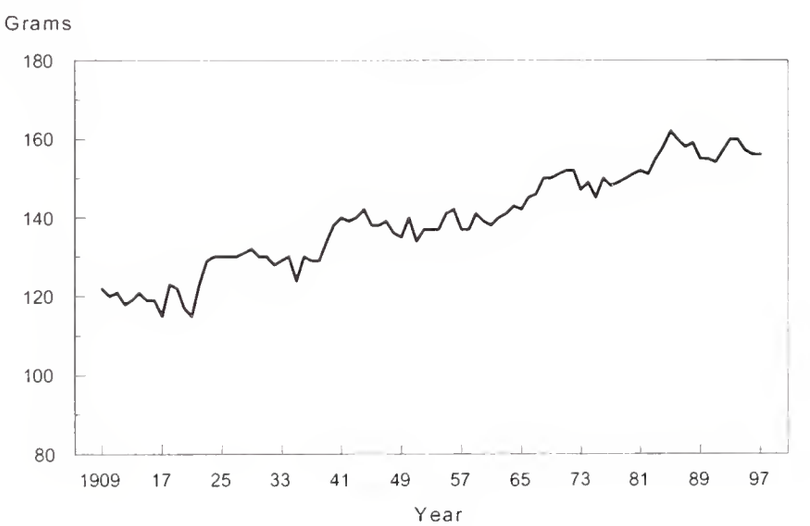
Estimates of the fat content in the food supply include visible fats, such as lard, margarine, and oils and invisible fats (distinguished from the fats and oils food group) present in dairy, meat, and baked products. Fat levels in the food supply increased 28 percent between 1909 and 1997 from 122 to 156 grams per capita per day (table 1, fig. 19).

Total fat contributions from red meat have generally declined throughout the series. In the early years, red meat contributed around one-third of the fat; however, by 1997, it had decreased by almost one-half. Salad oils have made a greater contribution to total fat availability, increasing from 2 percent in the early part of the series to 23 percent in 1997. Although the share of total fat from butter and lard has decreased, it is not enough to offset the percentage associated with increased use of salad oils. Thus, the share of total fat from the fats and oils group has gradually increased from nearly two-fifths in 1909 to over one-half in 1997 (table 9).

Total fat contributions from dairy products have fluctuated over the series. Lower contributions in the later years reflect the increased use of lowfat and skim milks. In 1909, dairy products contributed 15 percent of total fat available, with whole milk contributing 9 percent and cheese contributing 1 percent of this total. In 1997, this contribution decreased somewhat to 13 percent; however, whole milk contributed only 2 percent and cheese's contribution increased to 6 percent (table 9).

The increase in total fats and oils, especially in the last three decades, probably results from the greatly expanded use of fried foods by the fast-food industry and in food service outlets as well as the increased use of salad oils on salads consumed both at home and away (*30*). However, the nutritional concern in the mid-1990's to

Figure 19. Total fat in the U.S. food supply, per capita per day, 1909-97



cut dietary fat in the diet is apparent in the recent fat and oil per capita consumption estimates. Annual per capita consumption of fats and oils declined by 6 percent between 1993 and 1997, with only a slight decrease in fats and oils contribution (i.e., from 53 to 52 percent). Despite this downward trend, per capita consumption of fats and oils was 21 percent higher and its nutrient contribution to total fat was 9 percent higher in 1997 than in 1970 (tables 1 and 35).

While food supply estimates reflect trends in the availability of fats and oils for human food, they have never accurately measured the amount of food eaten because the portion of food wasted or discarded is difficult to determine. With the growth of the fast-food industry in the past three decades, it has become even more difficult to estimate the waste portion or discard of deep-frying fats. Since this discard is not available for human consumption, these estimates are limited as indicators of actual intake. A 1993 study estimated that about 50 percent or more of deep-frying fat used in food service operations is discarded after use and is not available for consumption (*11*). Reliable estimates of total fats and oils are difficult to determine partly because the actual amount of frying fat discarded by food service operations, particularly fast-food restaurants, varies with the type of establishment.

In recent years, the type of fat used in restaurants and frying operations has changed from edible tallow and solid vegetable oils to partially hydrogenated vegetable cooking oils and liquid oils (*6*). Hydrogenation imparts certain functional properties needed in products, such as product stability, extended shelf life, and lengthened utility. However, it also results in the formation of *trans* fatty acids. Along with the partially hydrogenated vegetable cooking oils and liquid oils used by restaurants and others, *trans* fatty acids are found in the hydrogenated fat used in the manufacture of margarine and vegetable shortening and therefore in foods prepared with these fats. Current research indicates that intake of *trans* fatty acids raises LDL-C levels nearly as much as cholesterol-raising saturated fatty acids and is associated with the increased risk of coronary heart disease (*22*). Most recently, the Food and Drug Administration proposed that the amount of *trans* fatty acids in a food be included in the Nutrition Facts panel (*50*).

While current research links consumption of *trans* fatty acids with increased risk of coronary heart disease, the amount of *trans* fatty acids in the diet has remained relatively constant in recent decades, in part because the increased consumption of vegetable fat has been counterbalanced by a decrease in the *trans* fatty acids content of many products made with vegetable fat (*6*).

Fatty Acids

Changes in the levels and sources of fat in the food supply have affected the per capita estimates of saturated, monounsaturated, and polyunsaturated fatty acids (table 1, fig. 20).

Saturated Fatty Acids. Saturated fatty acids decreased from 52 grams per capita in 1909 to 50 grams in 1997 and accounted for a smaller share of total fat in 1997 (32 percent) than in 1909 (43 percent). In 1909 and 1997, the fats and oils group was the primary source of saturated fatty acids, contributing about 40 percent. Over the series, the fats and oils group generally has been the leading contributor of saturated fatty acids. An exception is the period between 1968 and 1977 when consumption of red meat rose, resulting in a greater contribution of saturated fatty acids from this group. Otherwise the meat, poultry, and fish group has been the next leading source of saturated fatty acids in the food supply, followed by dairy products. In 1997, the meat, poultry, and fish group provided about 27 percent and dairy products 25 percent of the saturated fatty acids in the food supply (table 10, fig. 21).

Monounsaturated Fatty Acids. The amount of monounsaturated fatty acids increased from 47 grams per capita in 1909 to 66 grams in 1997. However, their share of total fat was similar for both years, about two-fifths (fig. 20). The fats and oils group has been the leading contributor of monounsaturated fatty acids in the food supply. Its contribution has increased from 40 percent in 1909 to 56 percent in 1997. The meat, poultry, and fish group has been the secondary source of monounsaturated fatty acids with contributions generally decreasing over the series from 42 percent in 1909 to 27 percent in 1997. Both of these trends reflect the greater use of vegetable fats and their replace ment of animal fats over the years (table 11, fig. 22).

Polyunsaturated Fatty Acids. The absolute level of polyunsaturated fatty acids increased nearly two and a half times from 13 grams in 1909 to 33 grams in 1997 (fig. 20). Polyunsaturated fatty acids accounted for about 22 percent of the total fat in 1997, compared with 12 percent in 1909. The meat, poultry, and fish group and the fats and oils group each contributed about one-third. Grain products contributed less than one-fifth of the polyunsaturated fatty acids available in 1909. Since then, the share provided by the fats and oils group has steadily increased, more than doubling in 1997 compared with 1909. In 1997, contributions from the meat, poultry, and fish group to polyunsaturated fatty acids availability decreased by more than one-half, and contributions from the grain group decreased from 17 to 5 percent compared with 1909 (table 12, fig. 23).

Figure 20. Saturated, monounsaturated, and polyunsaturated fats in the U.S. food supply, per capita per day, 1909-97

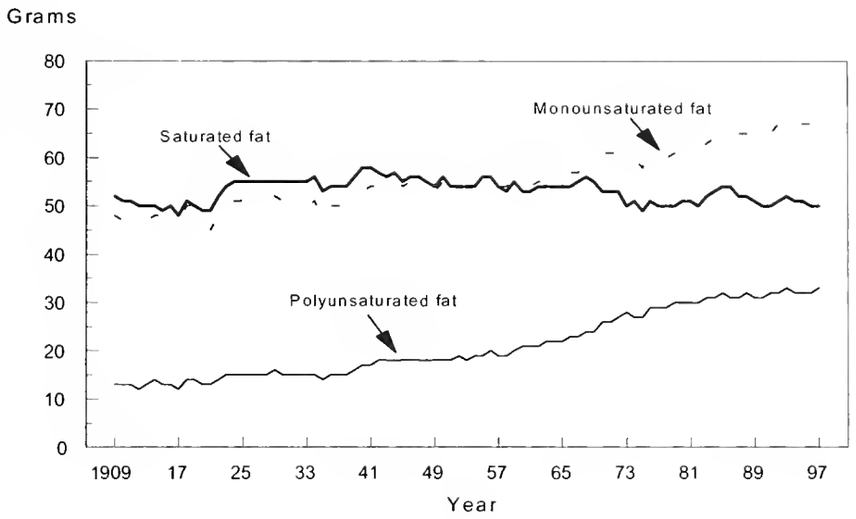


Figure 21. Sources of saturated fatty acids in the U.S. food supply

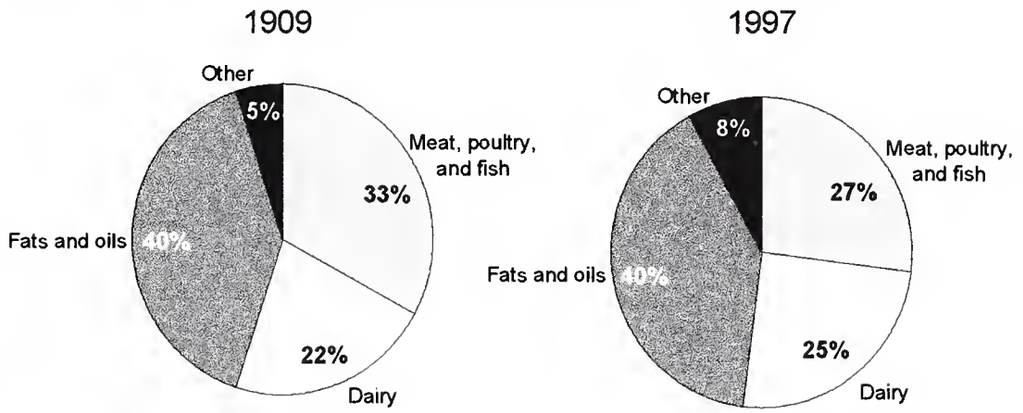


Figure 22. Sources of monounsaturated fatty acids in the U.S. food supply

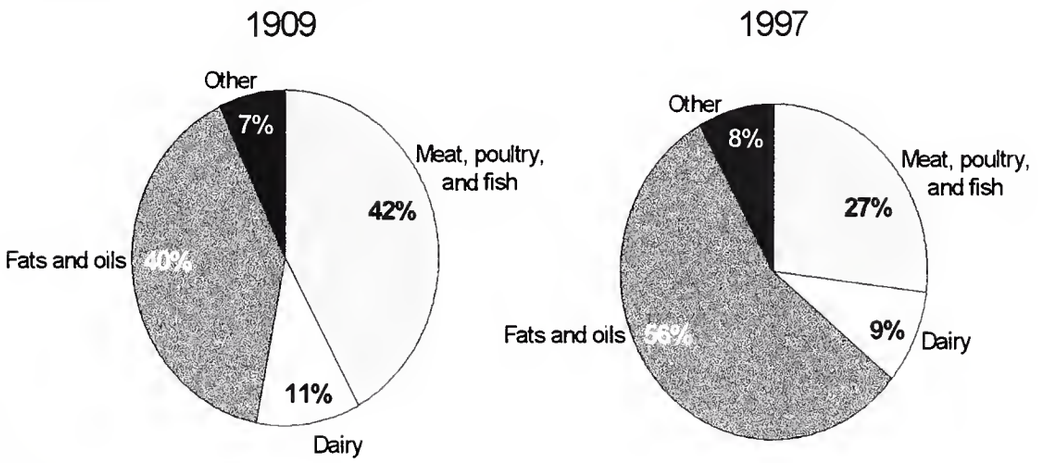
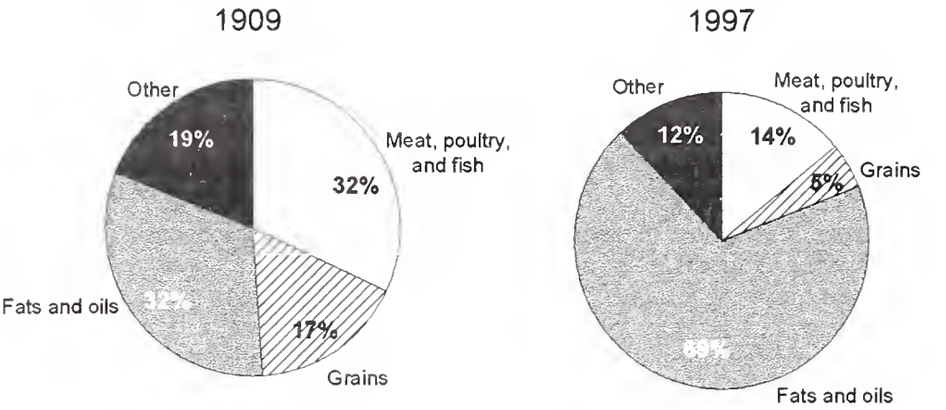


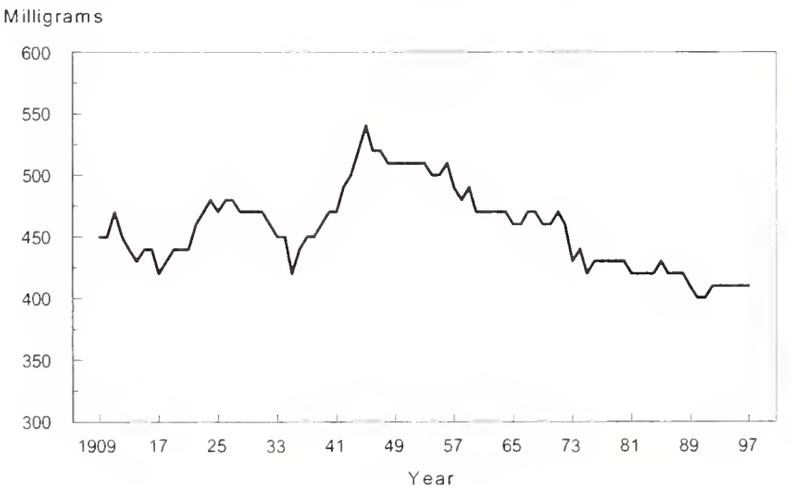
Figure 23. Sources of polyunsaturated fatty acids in the U.S. food supply



Cholesterol

Dietary cholesterol decreased by about 10 percent between 1909 and 1997 from 450 to 410 mg per capita per day (fig. 24). The peak level of 540 mg occurred at the end of WWII when use of eggs and dairy products was high (table 1). Eggs were the primary source of cholesterol from 1909 until the early 1970's. Eggs' contribution to total cholesterol peaked during the 1950's at 45 percent. Since then, the share of cholesterol from eggs has experienced a general downward trend, reaching its lowest point, 34 percent, in 1995. From the early 1970's, the cholesterol share from meat, poultry, and fish has continued to increase and in 1997 was 44 percent. Although no single food in the meat, poultry, and fish group contributes more cholesterol than eggs, the group as a whole contributes a significant share of available cholesterol. The share from dairy products has fluctuated somewhat, but has remained relatively stable at 16 percent in the later years of the series. However, shifts have occurred in product use within the dairy group, with less whole milk and cream and more lowfat milks, yogurt, and cheese as contributors to cholesterol availability from 1909 to 1997 (table 13).

Figure 24. Cholesterol in the U.S. food supply, per capita per day, 1909-97



Vitamins and Minerals

Dietary recommendations for some vitamins and minerals have changed since the last publication of this report. With the establishment of the Recommended Dietary Allowances (RDAs) in the 1940's, an era was begun to correct micronutrient deficiencies. The U.S. food supply responded to these recommendations and their subsequent revisions through enrichment of grains, fortification of foods, and the production of a variety of nutritious foods. Since the original release of the RDAs, significant scientific knowledge has accumulated about the roles of many nutrients and dietary components beyond those played in traditional deficiency diseases. As a result, in 1997, the Institute of Medicine (IOM) and Food and Nutrition Board (FNB) began to establish the Daily Reference Intakes (DRIs) for a number of nutrients. DRIs replace and expand on the past 50 years of periodic updates and revisions of the RDAs. The DRIs represent a new approach to providing quantitative estimates of nutrient intakes for use in a variety of settings. They differ in amounts and age categories from the 1989 RDAs and, along with the RDA category, include three new categories of reference values: (1) Estimated Average Requirement (EAR)—the amount of nutrient to meet the estimated nutrient needs of 50 percent of individuals in a specific group; (2) Adequate Intake Value (AI)—a goal for individual intake when no RDA is available; and (3) Tolerable Upper Limit (UL)—the maximum amount of nutrient intake unlikely to pose an adverse health risk to the individual (*52*).

Instead of a single document, the DRIs will be published in seven separate reports. Since 1997, three reports have been published: (1) minerals related to bone health, (2) folate and other B vitamins, and (3) antioxidants and related compounds. The recommendations, presented in these three reports, are summarized in table 33 (*12,13,14,52*). Future reports on macronutrients (e.g., protein, fat, carbohydrate), trace elements (e.g., zinc and iron), electrolytes and water, and other food components (fiber) will follow, based on committee review of the literature and consensus. Until expert guidance is published by the IOM's Food and Nutrition Board regarding the use of the DRIs for assessing the diets of individuals from large-scale dietary surveys, USDA continues to use the 1989 RDAs for nutrient assessment of dietary intake and nutrient availability from foods.

Food supply data include vitamins A, C, and E, thiamin, riboflavin, niacin, vitamin B_6 and B_{12}, and folate.[8] In general, per capita levels of these nutrients exceed by a generous margin the 1989 RDAs and the DRIs (tables 33 and 34) for a healthful diet. However, these levels represent averages for the total population and do not account for specific dietary needs, such as those required during pregnancy or lactation or dietary selection by individuals.

[8]Food supply data represent vitamins for which food consumption data are available.

Vitamins

Vitamins are organic compounds essential for specific metabolic reactions in the body. They cannot be synthesized by human tissue cells from simple metabolites. Many vitamins act as coenzymes or as parts of enzymes responsible for essential chemical reactions associated with functional or health outcomes.

Vitamin A, Carotenes

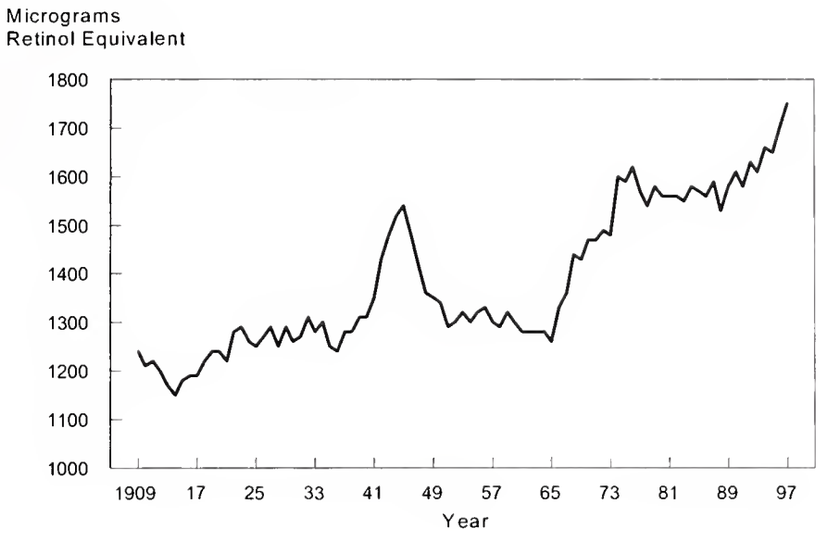
Vitamin A is essential for vision, growth, bone development, development and maintenance of epithelial tissue, the integrity of the immune system, and reproduction. Vitamin A occurs in different forms: preformed retinoids and carotenoids. Preformed retinoids with vitamin A activity are usually found in animal foods. Vegetable foods also have vitamin A activity because they contain carotenoid precusors of vitamin A. Beta-carotene is the most active of the carotenoids. Both preformed retinoids and carotenoids are converted to retinol in the body. Retinol equivalents (RE) are used to calculate the vitamin A activity in foods, because they take into consideration the different proportions and biologic activity of preformed vitamin A and carotenoids in foods.

Total vitamin A increased from 1,240 µg RE per capita per day in 1909 to 1,750 µg RE per capita per day in 1997. Levels of vitamin A were highest in 1997 at 1,750 µg RE per capita per day. Carotenes also increased from 430 µg RE to 780 µg RE per capita per day between 1909 and 1997 (table 2, fig. 25). High values in the late 1960's and 1970's were due to the development in the mid-1960's of new varieties of deep-yellow vegetables, such as carrots and squash; the increased availability of dark-green vegetables such as broccoli; and the revision of the miscellaneous vegetable composites which resulted in a different, more reflective mix of these nutrients. Fortification of margarine with vitamin A since the mid-1940's[9] and breakfast cereals beginning in 1974 has also contributed to the higher levels of vitamin A.

In the early part of this century, the meat, poultry, and fish group was the leading source of vitamin A, providing around one-third. Organ meats accounted for most of the vitamin A from this group. With the decline in human use of organ meats and fortification of breakfast cereals, the share of vitamin A contributed by the meat, poultry, and fish group decreased to about 19 percent in 1997. The popularity of vegetable "home" gardens during the years of WWII increased the share of vitamin A provided by the vegetable group from about 26 percent in 1909 to nearly 30 percent in the 1940's. The vegetable group became the leading source of vitamin A in the early 1970's, with increased contribution of carotenes from dark-green and deep-yellow vegetables. Vegetables provided more than one-third of the total vitamin A and more than four-fifths of carotenes in 1997, with dark-green and

[9]Vitamin A fortification levels prior to 1970 are set at the minimum standard of identity, 15,000 IU/pound (3,363 RE). Beginning in 1970, a direct link to PDS code for margarine set vitamin A at 16,212 IU/pound (3,627 RE). Beginning in 1970, this contributes more vitamin A to the food supply.

Figure 25. Vitamin A in the U.S. food supply, per capita per day, 1909-97



deep-yellow types accounting for most of the vegetable portion. Prior to 1974, vitamin A contributions from the grain group were minimal. With the adjustment of the food supply's fortification database to account for vitamin A fortification of ready-to-eat breakfast cereals, the contribution of vitamin A from cereal grain to the total food supply markedly increased and in 1997 was 8 percent. Due to the increase in vitamin A from fortification of ready-to-eat breakfast cereals, a shift in vitamin A contributions occurred among food groups. For example, between 1909 and 1997, the vitamin A and carotenes contribution from the fats and oils group was cut in half (tables 14 and 15, figs. 26 and 27).

Vitamin E

Vitamin E acts primarily as an antioxidant at the cellular level to prevent the peroxidation of polyunsaturated fatty acids. The level of vitamin E was 16.9 mg alpha TE per capita per day in 1997, up from 7.2 mg alpha TE per capita per day in 1909. The peak level, 17.4 mg alpha TE, occurred in 1993 when use of fats and oils was highest (table 2). Higher levels are due primarily to increased use of vegetable oils for salads and cooking and, to a lesser extent, use of margarine and shortening.

The fats and oils group is by far the largest contributor to vitamin E availability in the food supply, providing more than two-thirds since the early 1970's (table 16, fig. 28). In 1909, this group contributed about 34 percent of vitamin E to the food supply, followed by grain products at roughly 20 percent and vegetables at 11 percent. By 1997, the fats and oils group increased its contribution to 68 percent of total vitamin E in the food supply. Contributions from grain products and vegetables dropped to 5 and 8 percent, respectively, in 1997.

Figure 26. Sources of vitamin A in the U.S. food supply

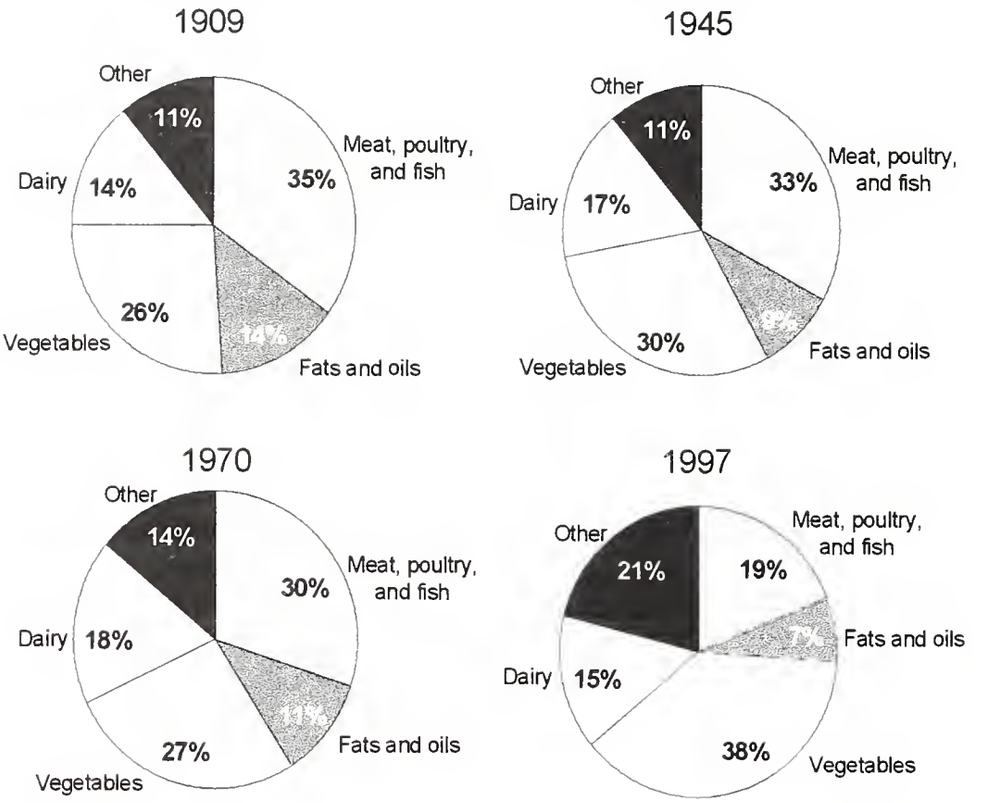


Figure 27. Sources of carotenes in the U.S. food supply

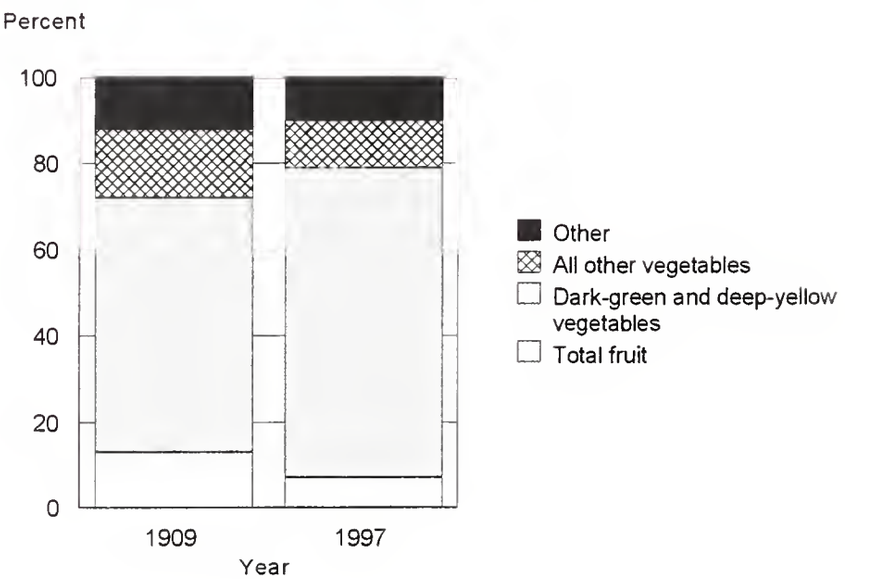
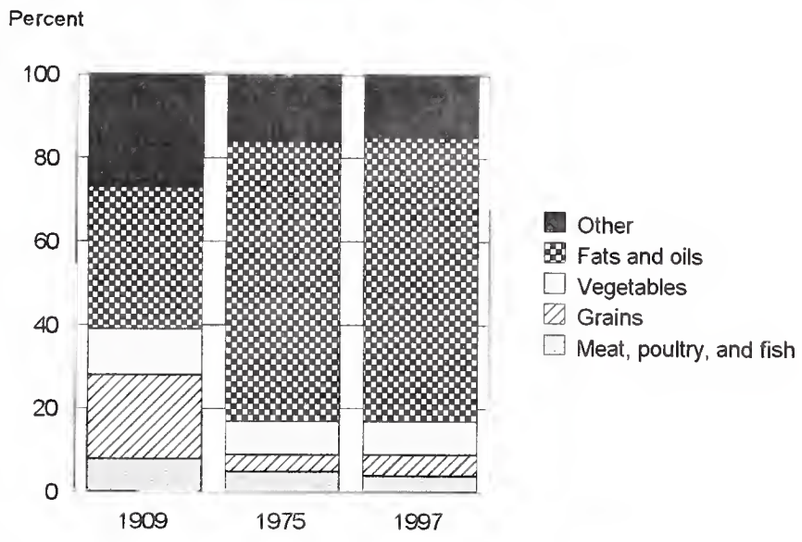


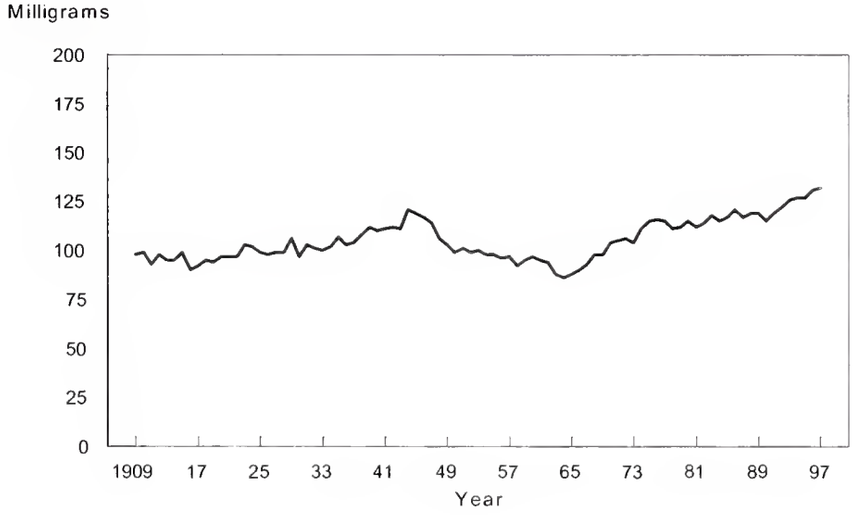
Figure 28. Sources of vitamin E in the U.S. food supply



Vitamin C

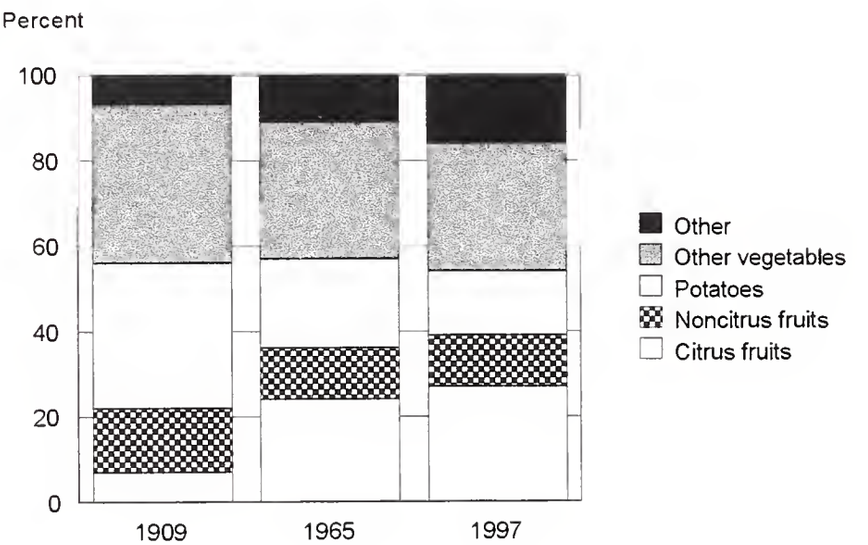
Vitamin C or ascorbic acid is best known for its prevention of scurvy. It also has beneficial roles in immune responses, wound healing, and allergic reactions (*23*). The level of vitamin C was highest in 1997 at 132 mg, which is 35 percent higher than the 1909 level of 98 mg (table 2, fig. 29). In 1944-45, vitamin C levels were also high, at an average of 120 mg per capita per day, due to the popularity of home-grown vegetable gardens during WWII. Vitamin C availability has generally increased since the mid-1960's because of the better quality, increased variety, and year-round availability of many fresh fruits and vegetables.

Figure 29. Vitamin C in the U.S. food supply, per capita per day, 1909-97



The fruit and vegetable share of total vitamin C in the food supply has been around 90 percent over the years. Although this percentage has remained relatively constant, shifts have occurred in the types of vegetables and fruits providing vitamin C. For example, early in this century, white potatoes were an important source, providing around one-third; by 1997, their share was halved. Citrus fruits provided 7 percent of the vitamin C availability in 1909 and 27 percent in 1997, almost a fourfold increase (table 17, fig. 30).

Figure 30. Sources of vitamin C in the U.S. food supply



Thiamin, Riboflavin, Niacin

These vitamins are components of essential enzyme systems involved with energy metabolism. Levels of each of these vitamins in the food supply were considerably higher in 1997 than in 1909, primarily because of the enrichment of flour beginning in the early 1940's and the fortification of breakfast cereals, beginning in 1939. Nutrient fortifications from breakfast cereals were updated in 1974 (*49*), resulting in a higher level of fortification and subsequent increase in these nutrients. Between 1909 and 1997, thiamin increased from 1.6 to 3.1 mg per capita per day; riboflavin, from 1.9 to 3.0 mg per capita per day; and niacin,[10] from 19 to 33 mg per capita per day (table 2). These higher levels virtually ensure that these vitamins pose no public health problems to most Americans (*5*).

[10]Food composition data give only the amount of preformed niacin in food. Thus, per capita nutrient estimates refer to availability of preformed niacin in the food supply, not that formed in the metabolism of tryptophan.

Levels of these vitamins in the food supply have fluctuated over time, with the lowest levels occurring in the mid-1930's (figs. 31 and 32). Vitamin levels began to increase in the early 1940's with the introduction of enriched flour but declined by the late 1940's because of a decrease in the use of grain products. Levels remained low until the late 1960's when they, particularly niacin, began to increase slowly, reflecting increased use of poultry and grain products. The continued upward trend of these vitamins since the mid-1970's has been primarily due to the increase in the fortification standards of RTE cereals (*49*) and the greater use in more recent years of enriched grain products.

Figure 31. Thiamin and riboflavin in the U.S. food supply, per capita per day, 1909-97

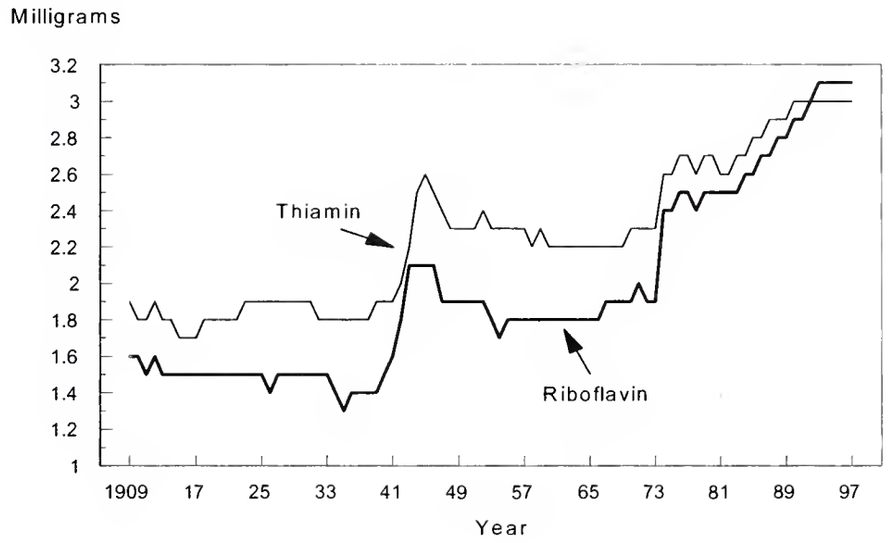
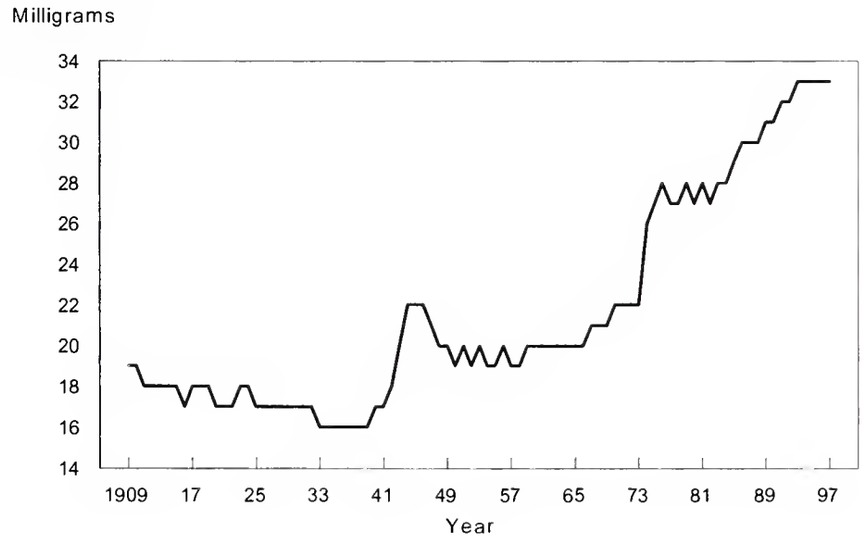
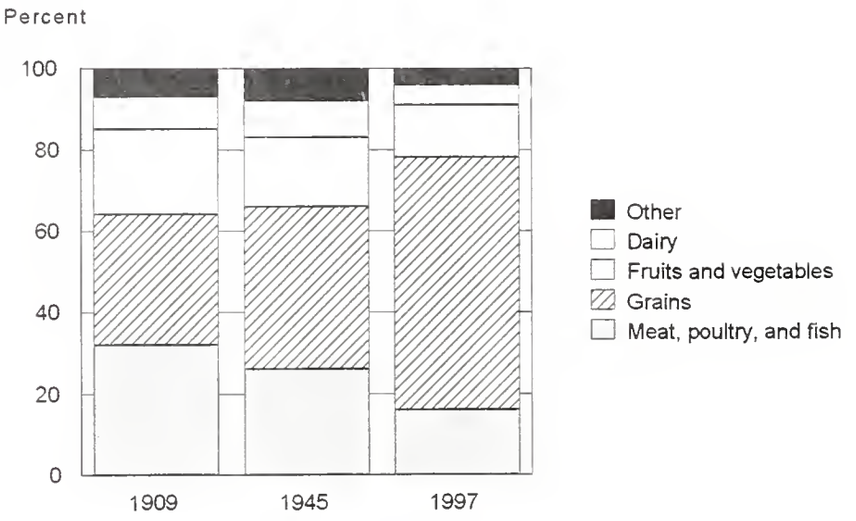


Figure 32. Niacin in the U.S. food supply, per capita per day, 1909-97



Although the enrichment of grain products is primarily responsible for the higher levels of these three vitamins, grain products have been the leading source of thiamin since the early 1940's. Before enrichment, the meat, poultry, and fish group was the primary source of thiamin, with grain products ranking second for most of the earlier years in the series. With the introduction of enriched flour, grain products became the primary source of thiamin in the food supply, providing about two-fifths of the total thiamin in the 1940's. In 1997, grain products accounted for 62 percent of the thiamin in the food supply, followed by the meat, poultry, and fish group at about 16 percent, fruits and vegetables at roughly 13 percent, and dairy at almost 5 percent (table 18, fig. 33).

Figure 33. Sources of thiamin in the U.S. food supply



Prior to 1974, dairy products had been the leading source of riboflavin in the food supply. Riboflavin levels reached 2.6 mg in the mid-1940's, reflecting the increased use of dairy products during WWII as well as the introduction of enriched flour. Fortification of breakfast cereals has shifted the primary source of riboflavin to grains. Riboflavin levels peaked in 1990 at 3.0 mg and have since remained stable. The riboflavin share from grain products increased substantially: from 15 percent in 1909 to 42 percent in 1997. By contrast, the riboflavin share from the meat, poultry, and fish group has fluctuated over time, gradually decreasing from a high of 24 percent in the early part of this century to a low of about 16 percent in the 1990's (table 19, fig. 34).

Prior to 1974, the meat, poultry, and fish group was the largest source of niacin, followed by the grain and vegetable groups. In 1909, the meat, poultry, and fish group accounted for 40 percent; the grain group, 29 percent; and the vegetable group, 21 percent of the niacin available in the food supply. In 1997, grain products contributed the largest share of niacin in the food supply at 48 percent, followed by the meat, poultry, and fish group at 33 percent and the vegetable group at 10 percent (table 18, fig. 35).

Figure 34. Sources of riboflavin in the U.S. food supply

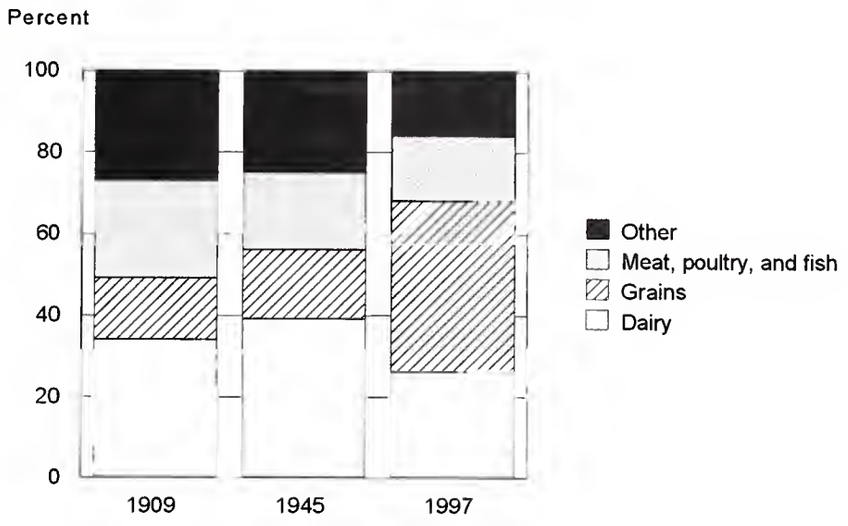
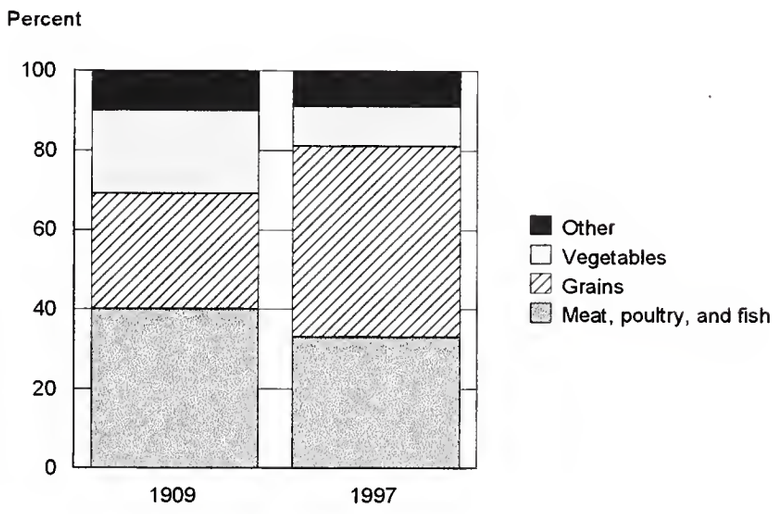


Figure 35. Sources of niacin in the U.S. food supply



Vitamin B_6

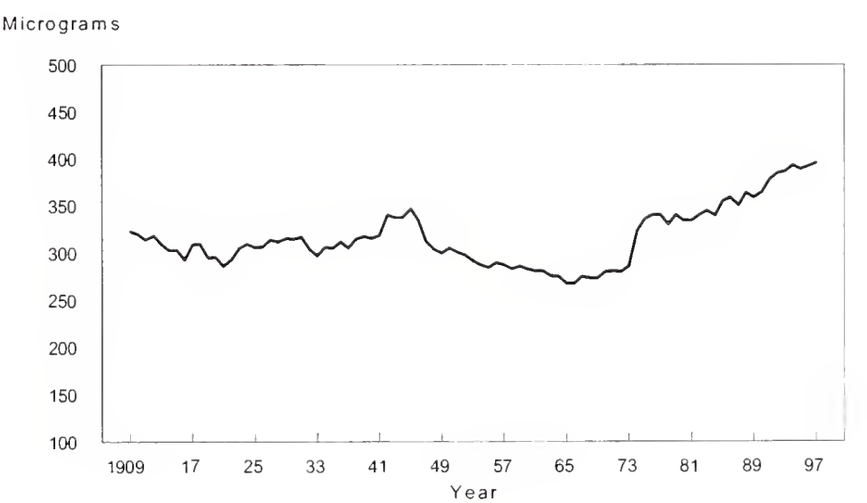
As a coenzyme, vitamin B_6 aids in the synthesis and breakdown of amino acids, fatty acid synthesis, and the conversion of tryptophan to niacin. The level of vitamin B_6 in the food supply rose from 2.2 micrograms per capita per day in 1909 to 2.5 in 1997. Levels of vitamin B_6 have not varied much over the years (table 2), but shifts have occurred in the sources.

In 1909, the vegetable group provided 33 percent of the total vitamin B_6 available and was the leading source of vitamin B_6 in the food supply. This lead continued through 1941. However, since 1942, the meat, poultry, and fish group has been the primary source of vitamin B_6, reflecting a greater use of beef and poultry. In 1997, the meat, poultry, and fish group contributed 33 percent of the total vitamin B_6, up from 27 percent in 1909. Vegetables declined in importance as a source of vitamin B_6 because the use of white potatoes dropped. However, vegetables still contributed nearly 21 percent of the vitamin B_6 to the food supply in 1997. Grain products provided 18 percent of the vitamin B_6 in 1909, but their contribution was less than half that from the mid-1950's through the mid-1960's. Contributions of vitamin B_6 from fortified breakfast cereals were primarily responsible for the increase to 15 percent from grains in the early 1970's (*49*). In 1997, grains provided 21 percent of the available B_6 to the food supply, an amount similar to that contributed by vegetables, while dairy and fruit contributions were similar, at 9 and 10 percent, respectively (table 21).

Folate

Folate functions as a coenzyme and is essential for the biosynthesis of nucleic acids and normal maturation of red blood cells. Low serum folate levels have been associated with elevated serum homocysteine, an independent risk factor for vascular disease and, during pregnancy, with the increased risk for neural-tube defects (*5*). The lowest level of folate in the food supply was 268 µg per capita per day in 1965-66. This low level was caused by a decreased use of vegetables, mostly potatoes and grain products. The highest level of folate, 396 µg per capita per day in 1997, was mainly due to fortification of breakfast cereal (table 2, fig. 36).[11]

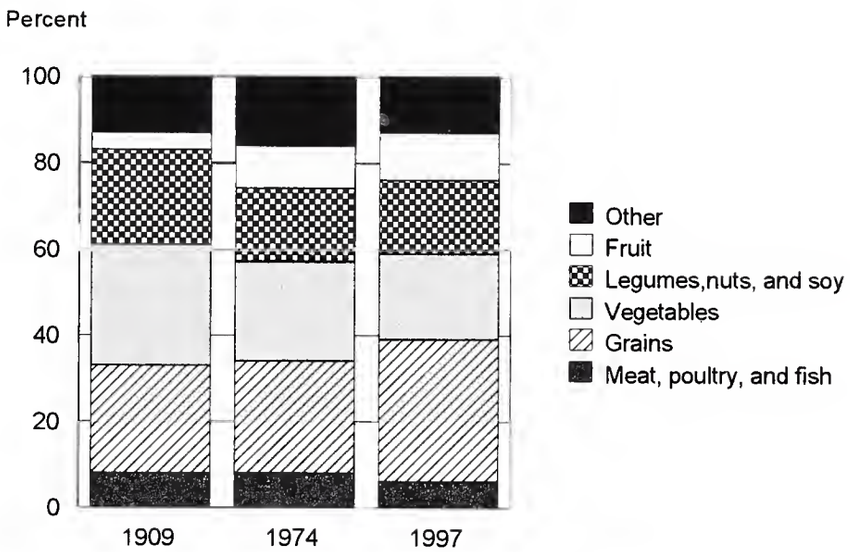
Figure 36. Folate in the U.S. food supply, per capita per day, 1909-97



[11]This level was prior to the application of the 1998 standards for folate fortification.

Vegetables were the leading source of folate prior to 1974, accounting for nearly 28 percent of the folate in the food supply in 1909, whereas grain products provided 25 percent for the same year. By the mid-1960's, folate contributions from grains dropped by almost one-half because of the decreased use of grain products. Folate contributions from grain in 1974 rose to the 1909 level of 25 percent, continued to increase to a full one-third in 1990 and remained stable through 1997. Prior to 1974 and the adjustment of folate fortification levels in breakfast cereals, the legumes, nuts, and soy group consistently provided one-fifth of the total folate in the food supply. Since 1974 the folate contribution from this group has been around 17 percent. The contribution from fruits almost tripled between 1909 and 1997, from 4 to 11 percent, reflecting the increased use of fresh and processed citrus commodities (table 22, fig. 37).

Figure 37. Sources of folate in the U.S. food supply



Vitamin B_{12}

Vitamin B_{12} is essential for normal cell metabolism, especially for cells in the gastrointestinal tract, bone marrow, and nervous tissue and is involved with folate metabolism (*23*). The level of vitamin B_{12} in the food supply was slightly lower in 1997 at 8.0 µg per capita per day than in 1909 at 8.4 µg per capita per day. Levels of vitamin B_{12} were highest at 9.5 µg in 1944 and again in 1970, a period of high beef, pork, and organ meats usage. In contrast, vitamin B_{12} levels were lowest in the mid-1930's, reflecting a reduced use of foods in the meat, poultry, and fish group during the Depression (table 2).

Vitamin B_{12} occurs naturally in animal foods only. The meat, poultry, and fish group has been the primary contributor of vitamin B_{12} over the years, accounting for about three-fourths of the total amount in the food supply. Dairy products and eggs have also contributed important shares over the series, ranging from 16 to 23 percent from dairy products and about 4 to 6 percent from eggs (table 23, fig. 38).

Figure 38. Sources of vitamin B_{12} in the U.S. food supply

Minerals

Minerals occur in the body and in food chiefly in the ionic form. In the body, they have essential roles both as dissolved ions in body fluids and as constituents of essential compounds (*23*). Food supply data include calcium, phosphorus, magnesium, iron, zinc, copper, selenium, potassium, and sodium.[12] In general, per capita levels of minerals exceed the 1989 RDA for a healthful diet by a generous margin (table 3, table 34); and with the exception of calcium, per capita levels of these minerals generally meet the DRIs (table 33).

Calcium

Calcium is essential for the formation of bones and teeth, and requirements are highest during adolescence, later adult years (51+ years), pregnancy, and lactation. Calcium is very important from a public health perspective because inadequate intakes of this mineral may increase the risk for osteoporosis, a condition in which decreased bone mass weakens bones and leads to fractures.

The amount of calcium available in the food supply has shifted over the years. Calcium levels dropped from 760 mg per capita per day in 1909 to 690 mg per capita per day in 1916, primarily because of decreased use of whole milk. Calcium levels increased by 57 percent between 1916 and 1946 when calcium reached a peak value of 1,080 mg per capita per day. This peak was caused by an increase in the use of whole, canned, and dried milk and cheese. From the mid-1940's to the early 1980's, calcium levels generally declined. Since then, however, levels have generally increased because of higher intakes of lowfat milk, yogurt, and cheese. (table 3, fig. 39).

[12]Food supply data represent minerals for which food composition are available.

Animal products, particularly dairy products, have always been the predominant source of calcium in the food supply. Animal products contributed 73 percent of the calcium in 1909 and 77 percent in 1997. A shift within the dairy group—decreased use of whole milk and increased use of lowfat and skim milks—has occurred over the years. In 1909, whole milk accounted for 44 percent of the calcium in the food supply; it contributed only 11 percent in 1997. Even though the share of calcium contributed by lowfat and skim milks has increased, this share does not completely compensate for the calcium loss that is due to the decreased use of dairy products. The share of calcium provided by cheese was six times higher in 1997 at 24 percent than in 1909 at 4 percent. The vegetable group has been the secondary source of calcium over time. However, its share has generally declined, dropping from 9 percent in 1909 to 6 percent in 1997 (table 24, fig. 40).

Figure 39. Calcium in the U.S. food supply, per capita per day, 1909-97

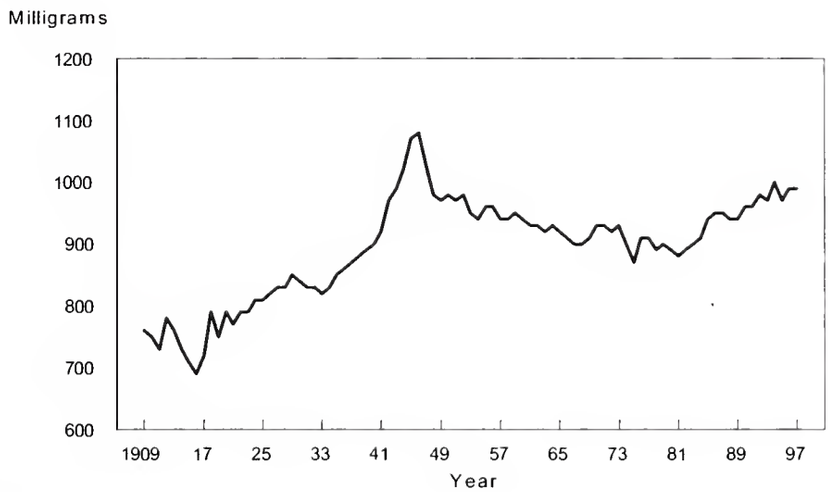
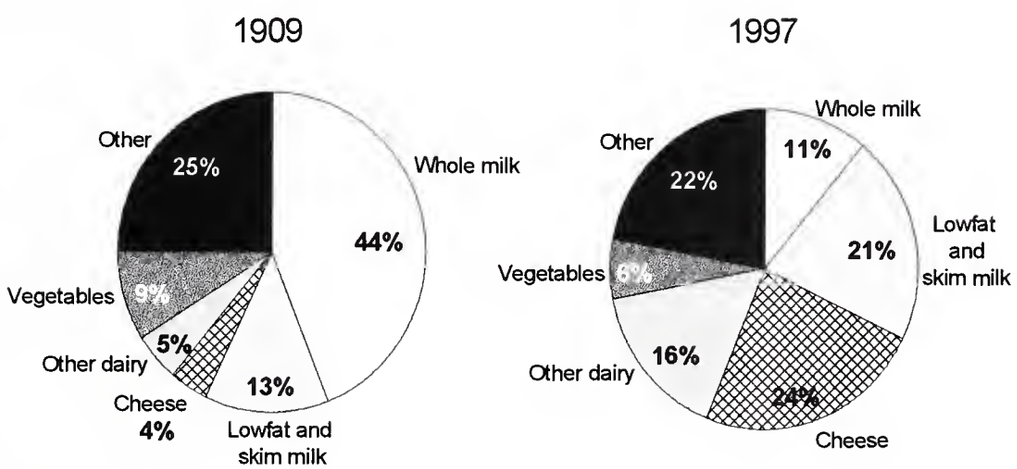


Figure 40. Sources of calcium in the U.S. food supply



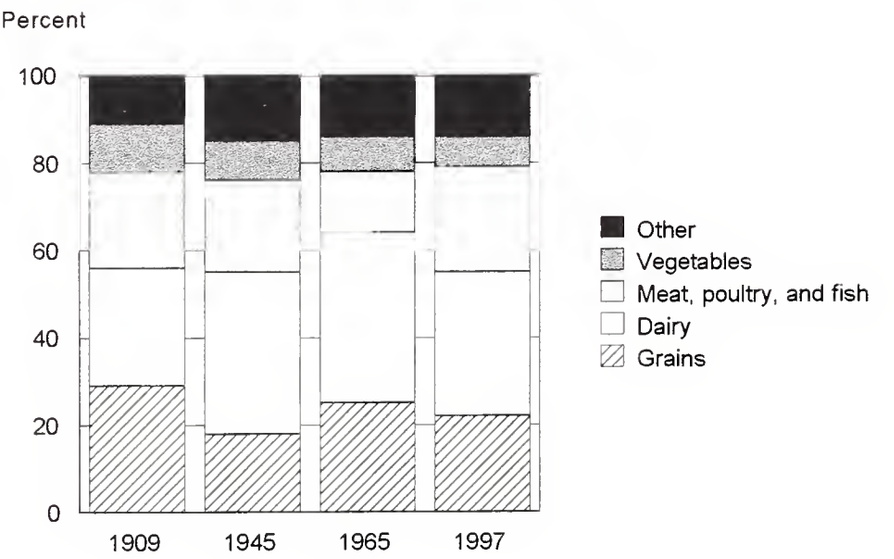
Phosphorus

Phosphorus is a component of every cell, ranking second to calcium in abundance in human tissues. It has numerous critical functions in the body related to bone, nucleic acid, and energy metabolism. Because practically all foods contain phosphorus, dietary deficiencies of the nutrient are unlikely to develop.

Phosphorus levels in the food supply fluctuated between 1909 and 1942, but were lower than the 1909 value of 1,500 mg per capita per day. Lower levels of phosphorus were due to the decline in use of the grain and meat, poultry, and fish groups, especially in the mid-1930's. Phosphorus levels increased to 1,670 mg in 1946, the highest level until 1992. The increased use of dairy products accounted for this high level. From 1947 to 1982, phosphorus levels generally decreased. However, since 1982 phosphorus levels have increased steadily, reflecting the increased use of dairy (especially cheese) and grain products. An all-time high of 1,720 mg was reached in 1997 (table 3).

In 1909, foods from plant sources contributed 47 percent of the phosphorus in the food supply, while foods from animal sources contributed 53 percent. In 1997, those shares had shifted to 41 percent from plant sources and 60 percent from animal sources. In 1909, the grain and dairy groups each contributed more than one-fourth and the meat, poultry, and fish group, more than one-fifth of the total phosphorus in the food supply. With the decline in consumption of grain products from 1909 to the 1960's, the share of phosphorus contributed by this group decreased by over one-half: from 29 to 14 percent. In 1997, the phosphorus share from grain products rose to 22 percent. Since the mid-1960's, the phosphorus contribution from the dairy group has been higher than previous years of the series, at more than one-third. The share of phosphorus from the meat, poultry, and fish group has generally declined since the early 1970's, providing 24 percent in 1997. Over the series, the vegetable group has provided an important, but not major, source of phosphorus, with contributions ranging from 11 percent in 1909 to about 7 percent in 1997 (table 25, fig. 41).

Figure 41. Sources of phosphorus in the U.S. food supply

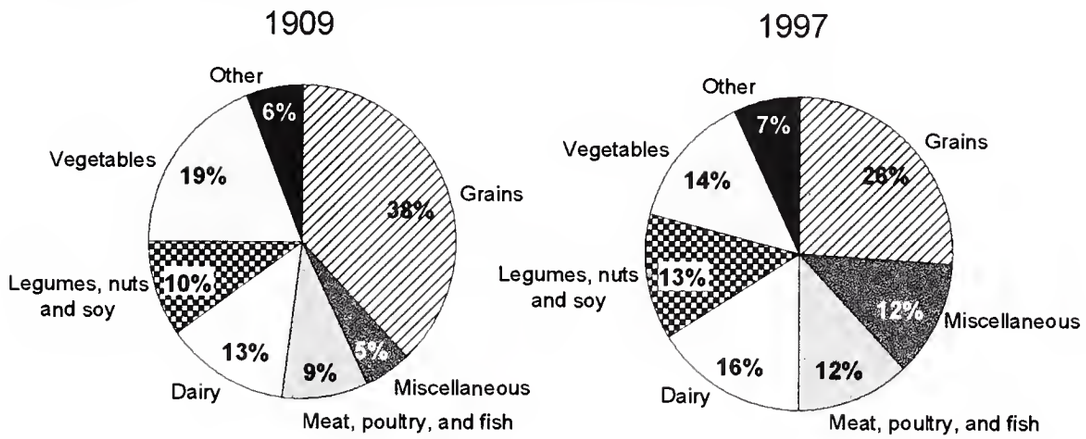


Magnesium

More than half the magnesium in the human body is found in bones, and most of the rest is found in intracellular fluid. Magnesium functions as an activator of many enzyme systems in the body (*23*). Magnesium levels have fluctuated somewhat over the series, but levels in 1997 were similar to those in 1909 at 390 and 400 mg per capita per day, respectively. These higher magnesium levels are related to increases in the use of grain products, dairy foods, or vegetables or their combined use. The lower magnesium levels from the mid-1950's through the early 1980's were due to a general decrease in the use of grain products (table 3).

Several shifts have occurred in the sources of magnesium over the years. In 1909, foods originating from plants accounted for 77 percent of the total supply of magnesium, with grains being the primary source. By 1964-65, that percentage dropped to 65; by 1997 it had increased to 72 percent. The miscellaneous group, which includes spices, is an important source, providing 12 percent of the magnesium in the food supply in 1997 (table 26, fig. 42).

Figure 42. Sources of magnesium in the U.S. food supply



Iron

Iron is found in all body cells, and as a component of hemoglobin in blood and myoglobin in muscles, iron carries oxygen. Iron deficiency anemia is the most common nutritional deficiency in the United States: infants, adolescents, and women of childbearing age are the most at risk for developing anemia. Their greater need, due to rapid growth or excessive blood loss during menstruation, usually cannot be compensated by dietary intake alone (*23*).

The amount of iron in the food supply was relatively high in 1909—14.2 mg per capita per day, compared with lower levels during the following 30 years. From 1909 through 1942, iron levels basically declined. In 1940, the National Research Council of the National Academy of Sciences endorsed the addition of iron to white flour and, by 1942, the Food and Drug Administration established standards of identity for enriched flour. These standards have changed over the years; consequently, iron levels have shifted (table 3, fig. 43). Even before the enrichment of white flour, the

predominant source of iron was grain products. In 1909, grain products provided 34 percent of the iron in the food supply. Because the use of grain products dropped, grain's iron share declined after 1909 until flour enrichment began in the 1940's. With the enrichment of flour and fortification of breakfast cereals, iron levels added to the food supply increased in spite of the drop in the consumption of grain products. In the 1980's, grain use increased, and by 1997, grain products accounted for over 56 percent of the iron in the food supply. After grain products, the meat, poultry, and fish group (particularly red meats) has ranked second as a source of iron through most of the years. This group provided 21 percent of the iron available in 1909 and 14 percent in 1997.

The vegetable group, specifically white potatoes, was an important source in earlier years. However, the share of iron from vegetables declined as the use of white potatoes declined. In 1909, the vegetable group furnished 19 percent of the iron in the food supply, but in 1997, that share dropped by almost half to 9 percent. Another important source of iron is the legumes, nuts, and soy group. In 1909, this group provided 13 percent of the iron in the food supply; however, the iron share decreased to 8 percent in 1997, reflecting the decreased consumption of home-produced dried beans and peas (table 27, fig. 44).

Figure 43. Iron in the U.S. food supply, per capita per day, 1909-97

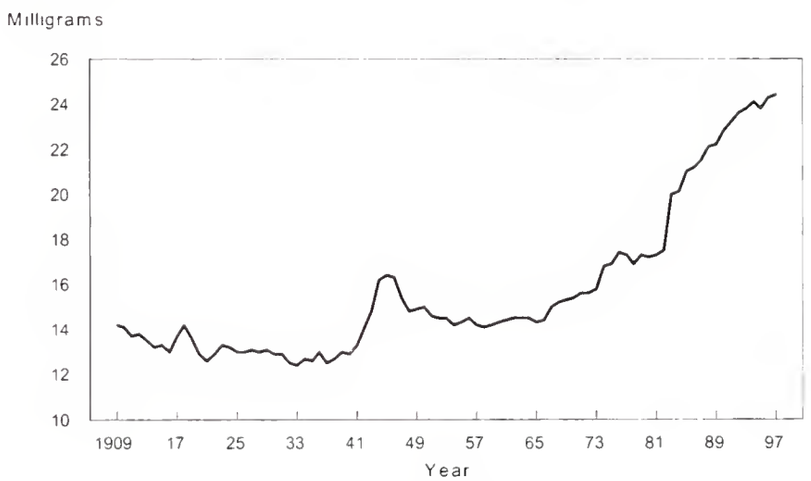
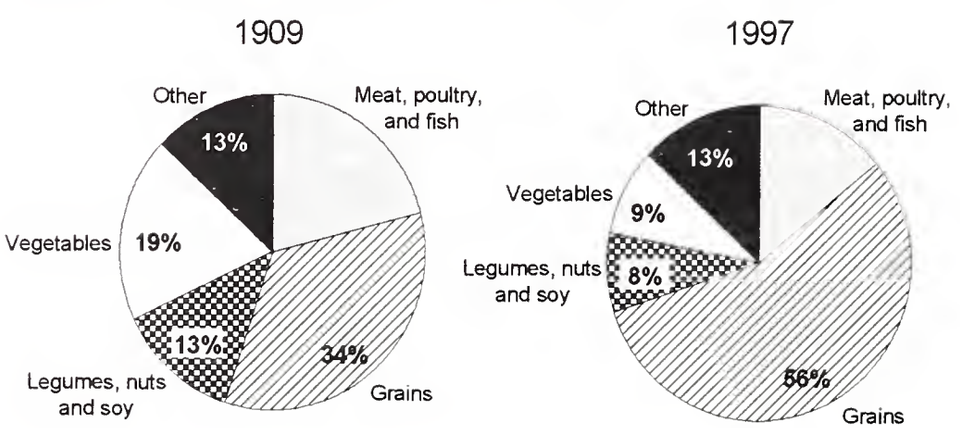


Figure 44. Sources of iron in the U.S. food supply

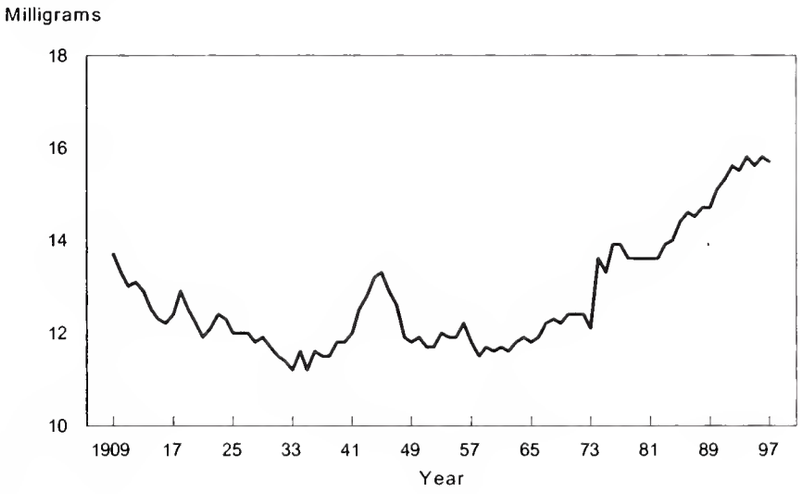


Zinc

Zinc is involved in the metabolism of carbohydrates, lipids, proteins, and nucleic acids. It plays an important role in wound healing, blood formation, and general growth and maintenance of all body tissues. Severe zinc deficiency is uncommon in the United States. However, mild or moderate deficiency has been found in older adults, the physically active, and individuals subject to stress, such as after surgery (*23,53*).

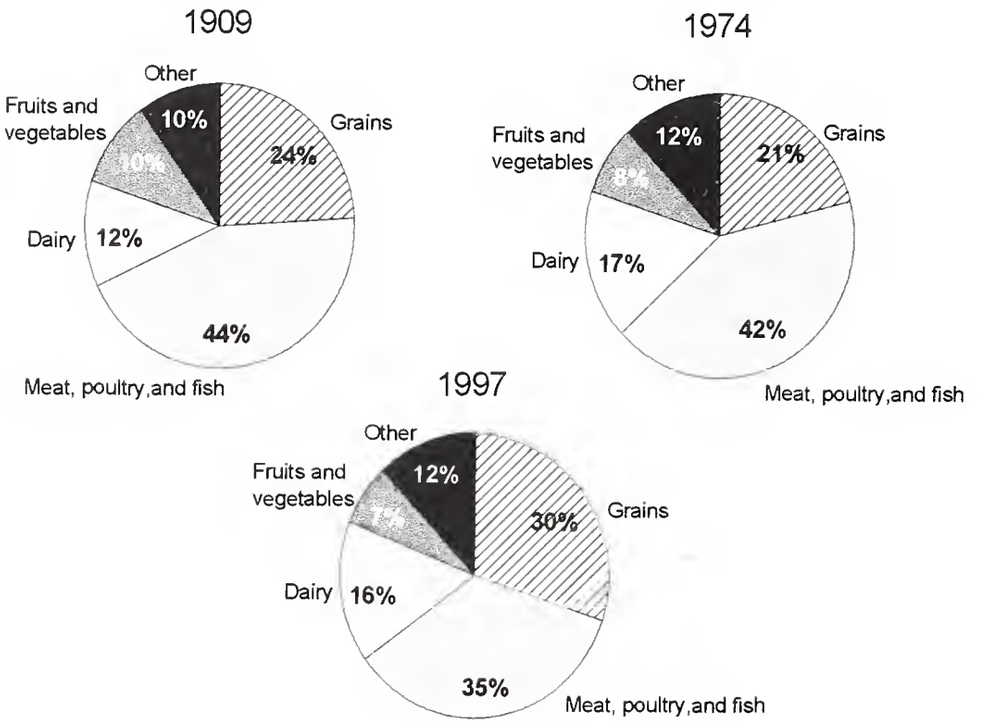
The level of zinc in the food supply reached its highest level in 1997 at 15.7 mg (table 3). From 1909, the per capita zinc level decreased to a low value of 11.2 mg per capita per day in 1935, attributed to decreases in use of the meat, poultry, and fish group and the grain group. Since then, zinc levels have fluctuated, with levels consistently higher since the mid-1980's because of an increase in the use of grains, including fortified breakfast cereals, especially since 1974 (table 3, fig. 45).

Figure 45. Zinc in the U.S. food supply, per capita per day, 1909-97



Animal products contributed 59 percent of the total supply of zinc in 1909 and 54 percent in 1997. Over time, the meat, poultry, and fish group has been the primary source of zinc in the food supply, contributing 42 percent in the early part of the century and 35 percent in 1997. The grain group, which was the second most important source of zinc in earlier years, contributed 24 percent of the zinc in 1909. In the mid-1960's, with the drop in the use of grain products, the dairy group replaced the grain group as the secondary source of zinc, providing 20 percent of the zinc in the food supply. With fortification of ready-to-eat breakfast cereals with zinc in 1974, the zinc contributions from grains increased to 21 percent. This share increased to nearly one-third in 1997. Over the series, fruits and vegetables have provided a stable source of zinc at about 7 percent (table 28, fig. 46).

Figure 46. Sources of zinc in the U.S. food supply



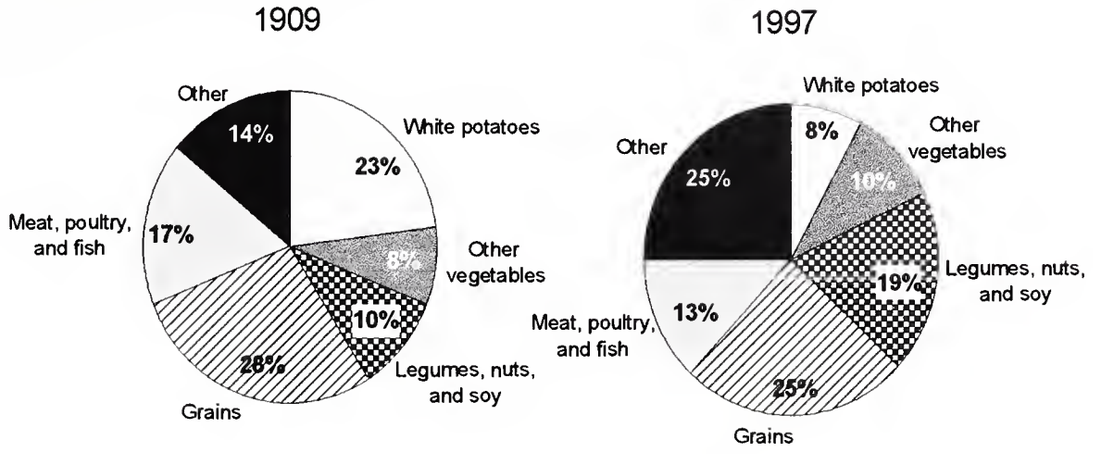
Copper

Copper is found in all body tissues and works with iron to form hemoglobin. Copper also helps maintain healthy bones, blood vessels, and nerves. The level of copper in the food supply did not vary greatly over the series, being the same in 1997 as in 1909: 2.0 mg per capita per day. Copper values fluctuated somewhat from 1909 to the mid-1970's when levels generally increased from 1.6 mg per capita per day to 2.0 mg in 1991. Since then levels have been stable (table 3).

Foods of plant origin are the primary source of copper. In 1909, plant sources provided 81 percent of the copper in the food supply and in 1997, the share increased to 84 percent. In 1909, the vegetable group was the leading source of copper, providing 31 percent to the food supply, largely because white potatoes alone accounted for 23 percent. Because of the decline in white potato consumption, white potatoes accounted for only 8 percent of the available copper in 1997. The overall decline in copper contribution from vegetables to the food supply began in the early 1960's; by 1997, the vegetable group, along with the legumes, nuts, and soy group, ranked as the second leading sources, providing 18 and 19 percent, respectively. Grain products replaced the vegetable group as the primary source of copper around 1978, providing one-fifth of the copper in the food supply and increasing to nearly one-fourth by 1997. Although breakfast cereals are not fortified with copper, the change in the breakfast cereal composite includes a mix of cereals with higher copper values, which results in a greater contribution of copper from these foods. The contributions from the meat, poultry, and fish group

decreased from 17 percent in 1909 to 13 percent in 1997. The share of copper from the legumes, nuts, and soy group has doubled since 1909, reflecting increased consumption of these foods, particularly soy products, over time (table 29, fig. 47).

Figure 47. Sources of copper in the U.S. food supply

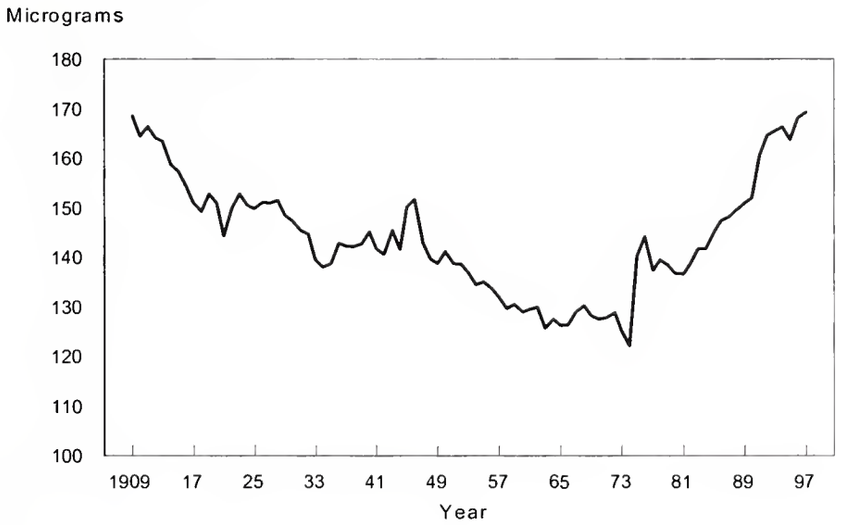


Selenium

Selenium is a micronutrient with antioxidant properties. Like vitamin E, it protects cells from oxidative damage. The RDA for selenium is 55 µg per day for non-pregnant, non-lactating women, but deficiency is rare in humans. Selenium is found in most foods, but the primary sources include meats, seafood, and grains.

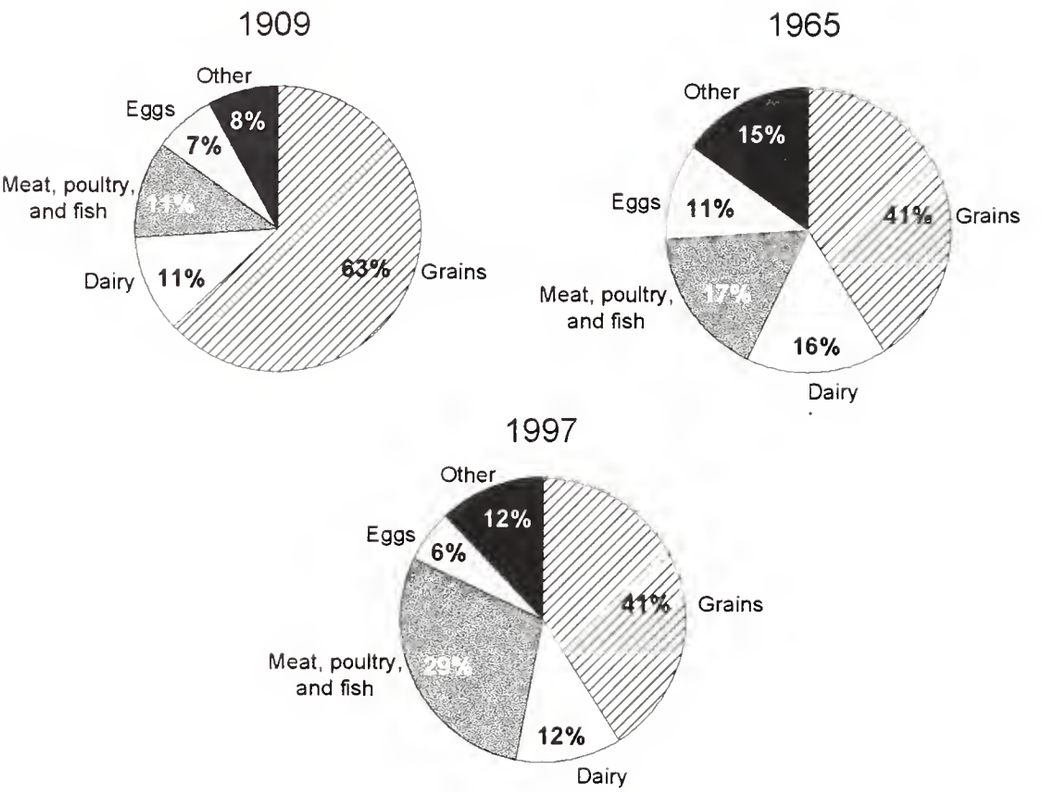
Substantial fluctuations in selenium levels have occurred in the food supply. Selenium levels decreased from 169 µg in 1909 to 123 µg per capita per day in 1963; a drop due to a decreased use of grains. From 1963, levels generally rose and in 1997 reached the same level as in 1909 (table 4, fig. 48).

Figure 48. Selenium in the U.S. food supply, per capita per day, 1909-97



Grains have always been the primary source of selenium in the food supply, although contributions have decreased from over three-fifths of the total in 1909 to slightly more than two-fifths in 1997. Dairy products and the meat, poultry, and fish group were the secondary sources of selenium in the first part of the food supply series, but since the 1960's, the meat, poultry, and fish group has taken the lead as the secondary source. The meat, poultry, and fish contributions increased from 17 percent in 1965 to about 29 percent in 1997, while contributions from the dairy group dropped from 16 percent to 12 percent during this period. Another important contributor of selenium has been eggs. However, selenium contributions from eggs have fluctuated over the series. This contribution increased from 7 percent in 1909 to 11 percent in the early 1960's, then declined to about 6 percent in 1997, a similar share to that in 1909. Over the series, vegetable sources have been the key contributor to selenium because of high levels from grain products. However, with the decrease in grain consumption and the increase in consumption of meat, poultry, and fish over the years, plant source contributions decreased from 71 percent in 1909 to 54 percent in 1997 (table 30, fig. 49).

Figure 49. Sources of selenium in the U.S. food supply

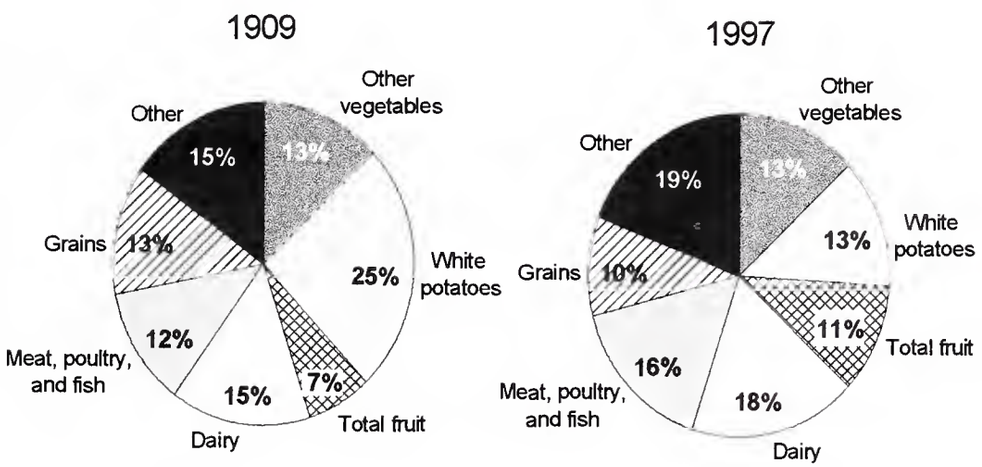


Potassium

Potassium aids in muscle contraction and in maintaining fluid and electrolyte balance in body cells. Potassium functions in nerve impulses as well as in carbohydrate and protein metabolism. Healthy people do not normally develop a potassium deficiency. During the earlier years and the WWII years of the series, potassium levels were generally higher in the food supply. This was due to the high use of dairy products and vegetables. From the peak level of 4,270 mg potassium per capita per day in 1944-45 until 1981, values primarily dropped. Since then, potassium levels have increased to 3,870 mg per capita per day in 1997, primarily because of an increase in fruit use (table 3).

Foods from plants have been the primary sources of potassium. In 1909, these foods provided 72 percent of the potassium in the food supply. Even though the percentage decreased over the years, foods from plants still provided 65 percent in 1997. This decrease in the contribution by foods from plant sources is attributed to the decline in the consumption of vegetables, particularly white potatoes. In 1909, vegetables contributed 38 percent of the potassium in the food supply, with white potatoes alone contributing 25 percent. By 1997, the share from potatoes had dropped by almost one-half; consequently, the total share from the vegetable group dropped to 26 percent of the potassium in the food supply. On the other hand, the contribution from fruit has generally increased over time, from 7 percent in 1909 to 11 percent in 1997. The share of potassium provided by the dairy group increased from 15 to 18 percent while that provided by the meat, poultry, and fish group increased from 12 to 16 percent between 1909 and 1997. However, the share from grains decreased from 13 percent in 1909 to 10 percent in 1997. Over the series, the leading source of potassium has been the vegetable group, followed by the dairy and the meat, poultry, and fish groups (table 31, fig. 50).

Figure 50. Sources of potassium in the U.S. food supply

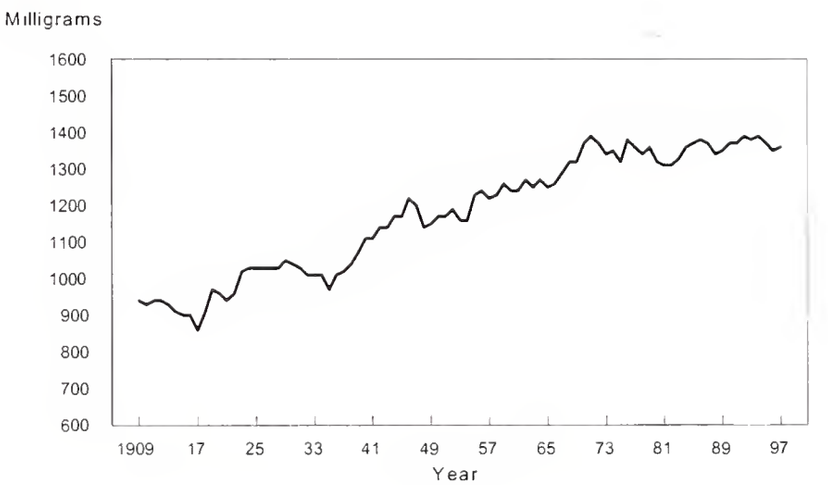


Sodium

Sodium, a major cation, regulates extracellular fluid and plasma volume. It also aids in conduction of nerve impulses and muscle contractions. Excessive sodium intake is more of a concern than is a deficiency of intake. Sodium is found in all foods, except fruit.

The amount of sodium available in the food supply has generally increased over the years. Sodium levels increased from 940 mg per capita per day in 1909 to 1,360 mg per capita per day in 1997. Higher sodium levels in the later years of the series were due to the increased consumption of cheese and processed vegetables. With the exception of these vegetables, food supply sodium estimates do not account for sodium added to food commodities through processing and manufacturing. Thus, sodium figures in this report are underestimated (table 4, fig. 51).

Figure 51. Sodium in the U.S. food supply, per capita per day, 1909-97



The meat, poultry, and fish group, dairy group, and vegetable group each account for significant contributions of sodium to the food supply. The meat, poultry, and fish group provided more than one-third of the total sodium in 1909, the largest share for any group at that time. The dairy group was the second leading source, providing about one-fourth. Over the series, the dairy group has become the primary contributor of sodium, mainly due to cheese consumption, providing nearly one-third in 1997. Since the 1950's, sodium contributions from processed vegetables, especially tomatoes, have increased, such that in 1997, vegetables contributed 28 percent of the total sodium in the food supply, a threefold increase from the 9 percent contribution of 1909 (table 32, fig. 52).

Figure 52. Sources of sodium in the U.S. food supply

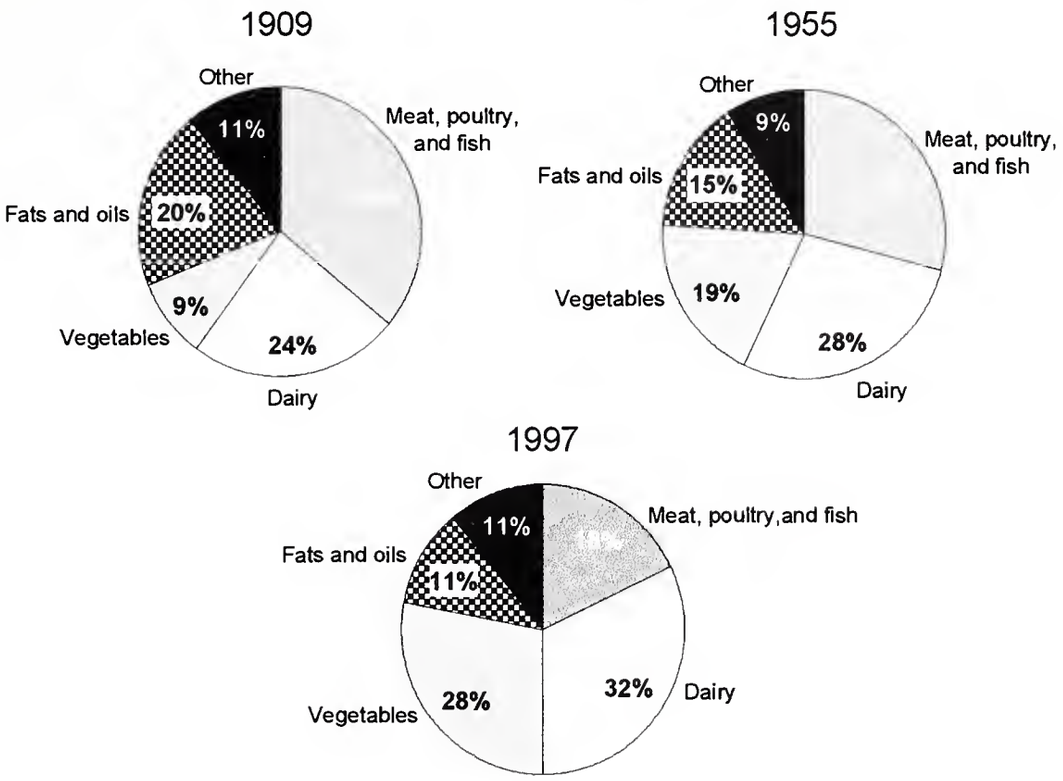


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Table Notes for Report Tables

Although estimates for each set of tables have been calculated for every year from 1909 through 1997, space limitations only allow the printing of yearly data for the table that includes nutrients per capita per day. For other tables, selected time period, 1909-19 and 1950-59, for example, are used to represent average estimates for years prior to 1970.

Nutrients per capita per day in the U.S. food supply

Nutrient estimates are based on Economic Research Service (ERS) estimates of per capita quantities of food available for consumption (retail weight), on imputed consumption data for foods no longer reported by ERS, and on USDA's estimates of quantities of produce from home gardens. No deduction is made in food supply estimates for loss of foods or nutrients in further processing, in marketing, or in the home. Data include estimates for iron, thiamin, riboflavin, niacin, vitamin A, vitamin B_6, vitamin B_{12}, folate, vitamin C, and zinc added by enrichment and fortification.

Nutrient contributions from major food groups to the U.S. food supply, selected years

Percentages are based on unrounded data. Components may not add to 100 because of rounding.

- **Other dairy products:** Includes cream; canned, evaporated, and dry milks; whey; ice cream and other frozen desserts; and yogurt.

- **Lard and beef tallow:** Excludes use in margarine and shortening.

- **Miscellaneous:** Includes coffee, tea, chocolate liquor equivalent of cocoa beans, spices, and fortification not assigned to a specific food group.

Foods per capita per year by major food groups in the U.S. food supply

To determine nutrient estimates from the major commodity groups and the percentage contribution by nutrients for each of these groups, CNPP adapted data on pounds of food per capita per year by major food groups in the U.S. food supply. The data were adapted from the ERS's series "Food Consumption, Prices, and Expenditures" (*30*). Data include USDA estimates of fruits and vegetables from home gardens and imputed consumption data for foods no longer reported by ERS.

Pounds of most foods are totaled on the basis of their retail weights to achieve consistency in aggregating different foods. Summing dissimilar forms of foods—such as liquids, solids, and concentrated products—makes it difficult to interpret changes in these data. Because of increased processing of foods over the years, pounds of food measured in equivalent weights are more appropriate for analyses of food trends. Totals for other milk products, total dairy products, and total sugars and sweeteners are measured in equivalent weights. However, caution must be used in interpreting the pounds per capita for other foods in this report to avoid misleading implications from either their levels or trends.

• **Meat:** Reported as fresh retail cut equivalent, which includes all meat cuts obtained from a carcass and trimmed for retail sale. Includes game, organ meats, and fat cuts of pork.

• **Poultry:** Reported as ready-to-cook weight. Ready-to-cook poultry weight is the entire dressed bird, which includes the bones, skin, fat, liver, heart, gizzard, and neck. Includes game birds.

• **Fish:** Reported on edible-weight basis, which excludes such offal as bones, viscera, and shells. Includes game fish.

• **Eggs:** Reported as shell-equivalent weight, which includes shell eggs and the approximate shell egg-equivalent of dried and frozen eggs.

• **Other milk products:** Includes creams, evaporated and condensed milks (canned and bulk), dry milk, whey, yogurt, sour cream, eggnog, and ice cream and frozen desserts.

Reported as calcium-equivalent weight, which is the amount of fluid whole cow's milk that has the same quantity of calcium as other milk products. For example, the calcium equivalent of 1.5 pounds of cheddar cheese is calculated as follows:

1. Derive calcium conversion factor.

$$\frac{\text{calcium in 1 pound cheddar cheese}}{\text{calcium in 1 pound fluid milk}} = \frac{3{,}275 \text{ mg}}{560 \text{ mg}} = 5.85$$

2. Multiply amount of cheddar cheese by calcium conversion factor.

1.5 pounds x 5.85 = 8.78 pounds

• **Total milk products:** Reported as calcium-equivalent weight.

• **Total grain products:** Includes wheat flour, rye flour, rice, corn flour, corn meal, hominy and corn grits, oat products, barley products, and ready-to-cook and ready-to-eat breakfast cereals. Total per capita grain consumption may be higher than ERS estimates due to inclusion of breakfast cereal (included to capture nutrients from fortification).

• **Lard and beef tallow:** Excludes use in margarine and shortening.

• **Total fruits:** Reported as product weight except for concentrated juices, which are on a single-strength basis.

• **Total other fresh vegetables:** Includes dark-green and deep-yellow types, tomatoes, and others.

• **Miscellaneous:** Inlcudes instant and regular coffee reported on roasted basis; tea reported as leaf equivalent; cocoa reported as chocolate liquor equivalent of cocoa beans, which is what remains after cocoa beans have been roasted and hulled; and spices.

Glossary

ARS	Agricultural Research Service
CNPP	Center for Nutrition Policy and Promotion
CSFII	Continuing Survey of Food Intakes by Individuals
DRI	Dietary Reference Intake
ERS	Economic Research Service
FDA	Food and Drug Administration
FNB	Food and Nutrition Board
IOM	Institute of Medicine
NDL	Nutrient Data Laboratory
PDS	Primary Data Set
RDA	Recommended Daily Allowances
RTE	Ready-to-eat
USDA	U.S. Department of Agriculture
WWII	World War II

Table 1. Food energy and macronutrients per capita per day in the U.S. food supply, 1909-97

Year	Food energy	Carbohydrate	Protein	Fat				Cholesterol
				Total	Saturated	Mono-saturated	Poly-saturated	
	Kilocalories	*Grams*						*Milligrams*
1909	3500	500	101	122	52	47	13	450
1910	3400	499	99	120	51	47	13	450
1911	3400	493	98	121	51	47	13	470
1912	3400	494	98	118	50	46	12	450
1913	3400	492	97	119	50	46	13	440
1914	3400	487	95	121	50	47	14	430
1915	3400	484	94	119	49	47	13	440
1916	3300	473	93	119	50	47	13	440
1917	3300	472	93	115	48	46	12	420
1918	3300	468	94	123	51	49	14	430
1919	3400	480	93	122	50	49	14	440
1920	3200	461	91	117	49	46	13	440
1921	3100	444	88	115	49	45	13	440
1922	3400	483	91	123	52	47	14	460
1923	3400	470	94	129	54	50	15	470
1924	3400	478	94	130	55	50	15	480
1925	3400	478	93	130	55	50	15	470
1926	3400	482	93	130	55	50	15	480
1927	3400	481	94	130	55	50	15	480
1928	3400	486	93	131	55	51	15	470
1929	3400	476	93	132	55	51	16	470
1930	3400	478	91	130	55	50	15	470
1931	3400	465	90	130	55	50	15	470
1932	3300	452	89	128	55	49	15	460
1933	3200	440	88	129	55	49	15	450
1934	3200	433	89	130	56	50	15	450
1935	3200	441	86	124	53	47	14	420
1936	3300	443	90	130	54	50	15	440
1937	3200	437	88	129	54	50	15	450
1938	3200	437	89	129	54	50	15	450
1939	3300	444	91	134	56	52	16	460

Table 1. Food energy and macronutrients per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Food energy	Carbohydrate	Protein	Fat				Cholesterol
				Total	Saturated	Mono-saturated	Poly-saturated	
	Kilocalories	*Grams*						*Milligrams*
1940	3300	434	92	138	58	53	17	470
1941	3400	449	93	140	58	54	17	470
1942	3300	430	97	139	57	54	18	490
1943	3400	434	101	140	56	55	18	500
1944	3400	434	102	142	57	56	18	520
1945	3300	425	104	138	55	54	18	540
1946	3300	418	102	138	56	55	18	520
1947	3300	425	97	139	56	54	18	520
1948	3200	404	94	136	55	53	18	510
1949	3200	406	93	135	54	53	18	510
1950	3200	407	93	140	56	55	18	510
1951	3100	397	92	134	54	53	18	510
1952	3100	394	93	137	54	54	19	510
1953	3100	390	93	137	54	54	18	510
1954	3100	382	92	137	54	54	19	500
1955	3100	380	93	141	56	56	19	500
1956	3100	381	94	142	56	56	20	510
1957	3100	375	92	137	54	54	19	490
1958	3100	378	91	137	53	54	19	480
1959	3100	378	93	141	55	56	20	490
1960	3100	378	92	139	53	54	21	470
1961	3100	377	92	138	53	54	21	470
1962	3100	377	92	140	54	55	21	470
1963	3100	374	92	141	54	55	22	470
1964	3100	375	93	143	54	56	22	470
1965	3100	375	93	142	54	56	22	460
1966	3200	380	93	145	54	57	23	460
1967	3200	383	94	146	55	57	23	470
1968	3200	386	95	150	56	59	24	470
1969	3200	389	95	150	55	60	24	460

Table 1. Food energy and macronutrients per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Food energy	Carbohydrate	Protein	Fat				Cholesterol
				Total	Saturated	Mono-saturated	Poly-saturated	
	Kilocalories	*Grams*						*Milligrams*
1970	3300	389	97	151	53	61	26	460
1971	3300	390	97	152	53	61	26	470
1972	3300	389	97	152	53	61	27	460
1973	3200	395	96	147	50	59	28	430
1974	3200	391	96	149	51	60	27	440
1975	3200	392	94	145	49	58	27	420
1976	3300	405	98	150	51	61	29	430
1977	3300	405	97	148	50	60	29	430
1978	3300	397	96	149	50	60	29	430
1979	3300	403	96	150	50	61	30	430
1980	3300	402	96	151	51	61	30	430
1981	3300	401	96	152	51	61	30	420
1982	3300	402	96	151	50	61	30	420
1983	3400	406	97	155	52	63	31	420
1984	3400	411	98	158	53	64	31	420
1985	3500	426	101	162	54	66	32	430
1986	3500	432	103	160	54	65	31	420
1987	3500	444	104	158	52	65	31	420
1988	3600	451	105	159	52	65	32	420
1989	3500	451	105	155	51	63	31	410
1990	3600	463	106	155	50	64	31	400
1991	3600	468	107	154	50	65	32	400
1992	3700	476	109	157	51	67	32	410
1993	3800	486	109	160	52	69	33	410
1994	3800	495	111	160	51	69	32	410
1995	3800	494	110	157	51	67	32	410
1996	3800	503	112	156	50	67	32	410
1997	3800	509	112	156	50	66	33	410

Table 2. Vitamins per capita per day in the U.S. food supply, 1909-97

Year	Vitamin A	Carotenes	Vitamin E	Vitamin C	Thiamin	Riboflavin	Niacin	Vitamin B_6	Folate	Vitamin B_{12}
	Micrograms ---------- *Retinol Equivalent* ----------		*Milligrams* *Alpha-Tocopherol Equivalent*	---------- *Milligrams* ----------					--------- *Micrograms* --------	
1909	1240	430	7.2	98	1.6	1.9	19	2.2	323	8.4
1910	1210	430	7.3	99	1.6	1.8	19	2.2	320	8.0
1911	1220	410	7.2	93	1.5	1.8	18	2.1	314	8.1
1912	1200	420	7.2	98	1.6	1.9	18	2.1	319	8.0
1913	1170	400	7.5	95	1.5	1.8	18	2.1	310	7.8
1914	1150	400	8.4	95	1.5	1.8	18	2.0	303	7.5
1915	1180	430	8.1	99	1.5	1.7	18	2.0	303	7.4
1916	1190	420	7.5	90	1.5	1.7	17	1.9	293	7.5
1917	1190	450	7.6	92	1.5	1.7	18	2.0	309	7.6
1918	1220	450	8.5	95	1.5	1.8	18	2.1	310	8.0
1919	1240	460	8.5	94	1.5	1.8	18	2.0	295	7.9
1920	1240	470	7.5	97	1.5	1.8	17	2.0	296	7.7
1921	1220	470	7.3	97	1.5	1.8	17	1.9	286	7.4
1922	1280	500	8.1	97	1.5	1.8	17	2.0	294	7.7
1923	1290	470	8.1	103	1.5	1.9	18	2.1	305	7.9
1924	1260	440	8.2	102	1.5	1.9	18	2.0	310	7.8
1925	1250	430	9.0	99	1.5	1.9	17	2.0	306	7.7
1926	1270	460	9.3	98	1.4	1.9	17	1.9	307	7.6
1927	1290	490	8.9	99	1.5	1.9	17	2.0	314	7.5
1928	1250	470	9.2	99	1.5	1.9	17	2.0	312	7.3
1929	1290	510	9.3	106	1.5	1.9	17	2.0	316	7.3
1930	1260	480	9.2	97	1.5	1.9	17	1.9	315	7.1
1931	1270	490	9.0	103	1.5	1.9	17	1.9	317	7.1
1932	1310	520	8.5	101	1.5	1.8	17	1.9	304	7.0
1933	1280	490	8.5	100	1.5	1.8	16	1.9	297	7.1
1934	1300	510	8.9	102	1.4	1.8	16	1.9	306	7.5
1935	1250	520	9.3	107	1.3	1.8	16	1.8	305	6.8
1936	1240	500	9.5	103	1.4	1.8	16	1.9	312	7.3
1937	1280	510	9.8	104	1.4	1.8	16	1.9	305	7.3
1938	1280	510	9.8	108	1.4	1.8	16	1.9	315	7.2
1939	1310	520	9.8	112	1.4	1.9	16	1.9	318	7.4

Table 2. Vitamins per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Vitamin A	Carotenes	Vitamin E	Vitamin C	Thiamin	Riboflavin	Niacin	Vitamin B_6	Folate	Vitamin B_{12}
	Micrograms		*Milligrams*							
	Retinol Equivalent		*Alpha-Tocopherol Equivalent*	*Milligrams*					*Micrograms*	
1940	1310	490	9.7	110	1.5	1.9	17	1.9	316	7.6
1941	1350	510	10.2	111	1.6	1.9	17	1.9	319	8.0
1942	1430	520	10.4	112	1.8	2.0	18	1.9	341	8.5
1943	1480	540	10.2	111	2.1	2.2	20	2.0	338	8.9
1944	1520	550	10.4	121	2.1	2.5	22	2.1	338	9.5
1945	1540	560	10.5	119	2.1	2.6	22	2.0	347	9.3
1946	1480	540	10.5	117	2.1	2.5	22	2.0	335	8.9
1947	1420	490	10.3	114	1.9	2.4	21	2.0	313	8.9
1948	1360	460	10.2	106	1.9	2.3	20	1.9	304	8.4
1949	1350	450	10.3	103	1.9	2.3	20	1.9	300	8.3
1950	1340	450	10.6	99	1.9	2.3	19	1.8	305	8.3
1951	1290	400	10.0	101	1.9	2.3	20	1.8	301	8.2
1952	1300	400	10.6	99	1.9	2.4	19	1.8	298	8.4
1953	1320	410	10.6	100	1.8	2.3	20	1.8	292	8.8
1954	1300	400	11.1	98	1.7	2.3	19	1.8	288	8.7
1955	1320	410	10.9	98	1.8	2.3	19	1.8	285	8.9
1956	1330	410	10.8	96	1.8	2.3	20	1.8	290	9.1
1957	1300	400	10.8	97	1.8	2.3	19	1.8	288	8.8
1958	1290	390	10.8	92	1.8	2.2	19	1.8	283	8.5
1959	1320	400	11.2	95	1.8	2.3	20	1.8	286	8.7
1960	1300	390	11.4	97	1.8	2.2	20	1.8	283	8.6
1961	1280	370	11.2	95	1.8	2.2	20	1.8	281	8.6
1962	1280	380	11.3	94	1.8	2.2	20	1.7	281	8.6
1963	1280	370	11.6	88	1.8	2.2	20	1.8	276	8.7
1964	1280	350	12.0	86	1.8	2.2	20	1.8	275	9.0
1965	1260	370	12.2	88	1.8	2.2	20	1.8	268	8.7
1966	1330	390	12.5	90	1.8	2.2	20	1.8	268	8.9
1967	1360	400	12.3	93	1.9	2.2	21	1.8	275	9.1
1968	1440	450	12.5	98	1.9	2.2	21	1.9	274	9.2
1969	1430	430	12.8	98	1.9	2.2	21	1.9	274	9.3

Table 2. Vitamins per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Vitamin A	Carotenes	Vitamin E	Vitamin C	Thiamin	Riboflavin	Niacin	Vitamin B_6	Folate	Vitamin B_{12}
	Micrograms		*Milligrams*							
	Retinol Equivalent		*Alpha-Tocopherol Equivalent*	*Milligrams*					*Micrograms*	
1970	1470	480	13.6	104	1.9	2.3	22	1.9	280	9.5
1971	1470	490	13.3	105	2.0	2.3	22	2.0	281	9.4
1972	1490	520	13.8	106	1.9	2.3	22	1.9	280	9.3
1973	1480	560	14.3	104	1.9	2.3	22	1.9	286	8.9
1974	1600	580	13.9	111	2.4	2.6	26	2.1	324	9.0
1975	1590	600	14.1	115	2.4	2.6	27	2.0	336	8.5
1976	1620	590	14.4	116	2.5	2.7	28	2.1	341	8.9
1977	1570	550	14.0	115	2.5	2.7	27	2.1	341	8.8
1978	1540	550	14.3	111	2.4	2.6	27	2.0	330	8.4
1979	1580	580	14.4	112	2.5	2.7	28	2.1	341	8.2
1980	1560	570	14.3	115	2.5	2.7	27	2.1	335	8.2
1981	1560	580	14.5	112	2.5	2.6	28	2.1	335	8.2
1982	1560	600	14.8	114	2.5	2.6	27	2.1	341	7.9
1983	1550	570	15.1	118	2.5	2.7	28	2.1	345	8.1
1984	1580	610	15.5	115	2.6	2.7	28	2.2	340	8.2
1985	1570	600	16.0	117	2.6	2.8	29	2.2	355	8.3
1986	1560	590	15.8	121	2.7	2.8	30	2.3	359	8.2
1987	1590	610	15.9	117	2.7	2.9	30	2.3	351	8.2
1988	1530	580	16.5	119	2.8	2.9	30	2.3	364	8.0
1989	1580	610	16.2	119	2.8	2.9	31	2.3	359	8.0
1990	1610	630	16.3	115	2.9	3.0	31	2.3	365	8.0
1991	1580	600	16.8	119	2.9	3.0	32	2.4	378	7.9
1992	1630	640	16.9	122	3.0	3.0	32	2.4	385	7.9
1993	1610	630	17.4	126	3.1	3.0	33	2.4	387	7.8
1994	1660	660	17.2	127	3.1	3.0	33	2.5	394	8.0
1995	1650	660	16.7	127	3.1	3.0	33	2.5	389	8.1
1996	1700	720	16.6	131	3.1	3.0	33	2.5	392	8.1
1997	1750	780	16.9	132	3.1	3.0	33	2.5	396	8.0

Table 3. Minerals per capita per day in the U.S. food supply, 1909-97

Year	Calcium	Phosphorus	Magnesium	Iron	Zinc	Copper	Potassium
	Milligrams						
1909	760	1500	390	14.2	13.7	2.0	4060
1910	750	1470	390	14.1	13.3	2.0	4040
1911	730	1450	370	13.7	13.0	1.9	3830
1912	780	1480	390	13.8	13.1	2.0	4040
1913	760	1450	370	13.5	12.9	1.9	3940
1914	730	1410	360	13.2	12.5	1.9	3770
1915	710	1400	370	13.3	12.3	1.9	3860
1916	690	1370	360	13.0	12.2	1.8	3610
1917	720	1400	380	13.7	12.4	1.9	3770
1918	790	1460	390	14.2	12.9	2.0	3980
1919	750	1420	370	13.6	12.5	2.0	3780
1920	790	1410	360	12.9	12.2	1.8	3750
1921	770	1370	350	12.6	11.9	1.8	3700
1922	790	1410	360	12.9	12.1	1.8	3750
1923	790	1450	370	13.3	12.4	1.9	3930
1924	810	1450	370	13.2	12.3	1.9	3860
1925	810	1440	360	13.0	12.0	1.9	3820
1926	820	1440	360	13.0	12.0	1.9	3750
1927	830	1460	370	13.1	12.0	1.9	3790
1928	830	1450	370	13.0	11.8	1.9	3820
1929	850	1470	380	13.1	11.9	1.9	3910
1930	840	1430	370	12.9	11.7	1.8	3750
1931	830	1430	370	12.9	11.5	1.9	3790
1932	830	1420	360	12.5	11.4	1.8	3710
1933	820	1400	350	12.4	11.2	1.8	3670
1934	830	1390	360	12.7	11.6	1.8	3740
1935	850	1380	360	12.6	11.2	1.8	3790
1936	860	1420	370	13.0	11.6	1.8	3800
1937	870	1410	360	12.5	11.5	1.8	3760
1938	880	1410	360	12.7	11.5	1.8	3820
1939	890	1440	370	13.0	11.8	1.8	3860

Table 3. Minerals per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Calcium	Phosphorus	Magnesium	Iron	Zinc	Copper	Potassium
	Milligrams						
1940	900	1460	370	12.9	11.8	1.8	3870
1941	920	1480	370	13.3	12.0	1.9	3940
1942	970	1540	390	14.1	12.5	1.9	4030
1943	990	1610	390	14.8	12.8	1.9	4070
1944	1020	1630	400	16.2	13.2	2.0	4270
1945	1070	1670	400	16.4	13.3	1.9	4270
1946	1080	1670	390	16.3	12.9	1.9	4220
1947	1030	1580	380	15.4	12.6	1.9	4050
1948	980	1510	360	14.8	11.9	1.7	3820
1949	970	1500	360	14.9	11.8	1.8	3820
1950	980	1510	350	15.0	11.9	1.8	3760
1951	970	1490	350	14.6	11.7	1.7	3770
1952	980	1500	340	14.5	11.7	1.7	3710
1953	950	1480	340	14.5	12.0	1.7	3710
1954	940	1460	330	14.2	11.9	1.6	3630
1955	960	1480	330	14.3	11.9	1.7	3660
1956	960	1490	340	14.5	12.2	1.6	3650
1957	940	1470	330	14.2	11.8	1.6	3630
1958	940	1450	330	14.1	11.5	1.6	3550
1959	950	1470	330	14.2	11.7	1.6	3610
1960	940	1460	330	14.3	11.6	1.6	3580
1961	930	1450	330	14.4	11.7	1.6	3560
1962	930	1450	330	14.5	11.6	1.6	3540
1963	920	1450	320	14.5	11.8	1.6	3510
1964	930	1460	330	14.5	11.9	1.6	3490
1965	920	1450	320	14.3	11.8	1.6	3440
1966	910	1450	330	14.4	11.9	1.6	3460
1967	900	1460	330	15.0	12.2	1.6	3450
1968	900	1470	330	15.2	12.3	1.6	3500
1969	910	1470	330	15.3	12.2	1.6	3480

Table 3. Minerals per capita per day in the U.S. food supply, 1909-97 (continued)

Year	Calcium	Phosphorus	Magnesium	Iron	Zinc	Copper	Potassium
	Milligrams						
1970	930	1490	330	15.4	12.4	1.6	3550
1971	930	1500	330	15.6	12.4	1.6	3540
1972	920	1490	330	15.6	12.4	1.7	3530
1973	930	1480	330	15.8	12.1	1.6	3520
1974	900	1500	330	16.8	13.6	1.7	3490
1975	870	1460	330	16.9	13.3	1.7	3480
1976	910	1510	340	17.4	13.9	1.8	3570
1977	910	1510	340	17.3	13.9	1.7	3510
1978	890	1490	330	16.9	13.6	1.7	3440
1979	900	1510	340	17.3	13.6	1.7	3510
1980	890	1490	330	17.2	13.6	1.7	3470
1981	880	1490	340	17.3	13.6	1.7	3440
1982	890	1490	340	17.5	13.6	1.7	3450
1983	900	1520	350	20.0	13.9	1.8	3510
1984	910	1540	350	20.1	14.0	1.8	3540
1985	940	1580	360	21.0	14.4	1.8	3620
1986	950	1610	370	21.2	14.6	1.9	3680
1987	950	1620	370	21.5	14.5	1.8	3630
1988	940	1630	380	22.1	14.7	1.9	3670
1989	940	1630	380	22.2	14.7	1.9	3670
1990	960	1660	380	22.8	15.1	1.9	3700
1991	960	1660	390	23.2	15.3	2.0	3730
1992	980	1690	400	23.6	15.6	2.0	3800
1993	970	1690	390	23.8	15.5	2.0	3800
1994	1000	1720	400	24.1	15.8	2.0	3860
1995	970	1700	390	23.8	15.6	2.0	3790
1996	990	1720	400	24.3	15.8	2.0	3860
1997	990	1720	400	24.4	15.7	2.0	3870

Table 4. Dietary fiber, selenium, and sodium per capita per day in the U.S. food supply, 1909-97

Year	Dietary fiber	Selenium	Sodium	Year	Dietary fiber	Selenium	Sodium
	Grams	*Micrograms*	*Milligrams*		*Grams*	*Micrograms*	*Milligrams*
1909	29	169	940	1935	26	139	970
1910	29	164	930	1936	25	143	1010
1911	28	167	940	1937	25	142	1020
1912	29	164	940	1938	25	142	1040
1913	28	163	930	1939	26	143	1070
1914	28	159	910	1940	25	145	1110
1915	28	157	900	1941	25	142	1110
1916	27	154	900	1942	25	141	1140
1917	28	151	860	1943	25	145	1140
1918	28	149	910	1944	25	142	1170
1919	27	153	970	1945	26	150	1170
1920	26	151	960	1946	24	152	1220
1921	25	144	940	1947	23	143	1200
1922	26	150	960	1948	22	140	1140
1923	27	153	1020	1949	22	139	1150
1924	26	151	1030	1950	22	141	1170
1925	26	150	1030	1951	21	139	1170
1926	26	151	1030	1952	20	139	1190
1927	26	151	1030	1953	20	137	1160
1928	26	152	1030	1954	20	135	1160
1929	27	149	1050	1955	19	135.	1230
1930	26	147	1040	1956	20	134	1240
1931	26	145	1030	1957	19	132	1220
1932	25	145	1010	1958	19	130	1230
1933	25	140	1010	1959	19	131	1260
1934	25	138	1010	1960	19	129	1240

Table 4. Dietary fiber, selenium, and sodium per capita per day in the U.S. food supply, 1909-97--continued

Year	Dietary fiber	Selenium	Sodium	Year	Dietary fiber	Selenium	Sodium
	Grams	*Micrograms*	*Milligrams*		*Grams*	*Micrograms*	*Milligrams*
1961	19	130	1240	1980	20	137	1320
1962	19	130	1270	1981	20	137	1310
1963	18	126	1250	1982	20	139	1310
1964	18	128	1270	1983	20	142	1330
1965	18	126	1250	1984	21	142	1360
1966	18	126	1260	1985	21	145	1370
1967	18	129	1290	1986	22	147	1380
1968	19	130	1320	1987	22	148	1370
1969	18	128	1320	1988	23	150	1340
1970	19	127	1370	1989	23	151	1350
1971	19	128	1390	1990	23	152	1370
1972	19	129	1370	1991	24	160	1370
1973	19	125	1340	1992	24	165	1390
1974	19	122	1350	1993	24	166	1380
1975	19	140	1320	1994	24	166	1390
1976	20	144	1380	1995	24	164	1370
1977	20	137	1360	1996	25	168	1350
1978	19	139	1340	1997	25	169	1360
1979	20	139	1360				

Table 5. Food energy contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	13.3	0.9	0.6	14.7	5.1	0.8	0.6	2.1	8.5	1.8	2.3	37.6
1920-29	13.0	0.9	0.5	14.4	5.6	0.7	0.7	2.8	9.8	1.9	2.4	32.2
1930-39	12.5	0.9	0.5	13.9	5.9	0.6	0.8	3.3	10.7	1.9	2.8	29.5
1940-49	14.7	1.2	0.5	16.4	7.2	0.6	1.0	3.7	12.5	2.2	3.1	26.6
1950-59	15.5	1.5	0.6	17.6	7.2	0.5	1.3	3.6	12.5	2.5	3.0	22.7
1960-69	16.3	2.2	0.5	19.0	6.2	0.7	1.6	3.2	11.7	2.1	3.0	21.2
1970	16.4	2.7	0.5	19.6	5.2	1.1	1.8	2.9	10.9	2.0	2.9	19.8
1971	16.8	2.7	0.5	20.1	5.1	1.1	1.9	2.8	10.9	2.0	3.0	19.7
1972	16.1	2.8	0.6	19.5	4.9	1.2	2.0	2.7	10.8	1.9	3.0	19.4
1973	14.9	2.7	0.6	18.2	4.7	1.3	2.0	2.8	10.9	1.9	3.3	20.1
1974	15.8	2.7	0.6	19.1	4.4	1.3	2.2	2.7	10.6	1.8	3.0	20.7
1975	14.6	2.7	0.5	17.8	4.3	1.2	2.2	2.7	10.4	1.8	3.3	21.5
1976	14.8	2.8	0.6	18.2	4.0	1.5	2.3	2.6	10.4	1.7	3.1	21.4
1977	14.8	2.9	0.5	18.2	3.9	1.6	2.4	2.6	10.4	1.7	3.1	21.3
1978	14.4	3.0	0.6	18.0	3.8	1.6	2.5	2.6	10.4	1.7	3.1	21.2
1979	14.1	3.2	0.6	17.8	3.6	1.6	2.5	2.6	10.3	1.8	3.1	21.6
1980	14.3	3.2	0.5	18.0	3.4	1.7	2.5	2.6	10.1	1.7	2.8	21.7
1981	14.1	3.3	0.6	17.9	3.2	1.7	2.6	2.5	10.0	1.7	3.0	21.8
1982	13.3	3.3	0.5	17.1	3.0	1.7	2.9	2.5	10.1	1.7	3.3	22.2
1983	13.5	3.3	0.5	17.3	2.9	1.7	2.9	2.6	10.1	1.6	3.2	21.8
1984	13.2	3.3	0.6	17.1	2.8	1.8	3.0	2.7	10.2	1.6	3.1	21.7
1985	12.8	3.3	0.6	16.7	2.7	1.8	3.0	2.6	10.1	1.5	3.3	22.1
1986	12.4	3.4	0.6	16.4	2.5	1.9	3.0	2.7	10.2	1.5	3.2	22.8
1987	11.8	3.6	0.6	16.0	2.4	1.9	3.1	2.7	10.1	1.5	3.0	23.7
1988	11.8	3.6	0.6	16.0	2.2	1.9	3.0	2.6	9.8	1.4	3.3	24.2
1989	11.6	3.8	0.6	16.0	2.1	2.1	3.0	2.6	9.8	1.4	3.2	24.4
1990	11.0	3.9	0.6	15.4	1.9	2.1	3.1	2.7	9.7	1.4	3.1	25.0
1991	9.8	4.0	0.6	14.3	1.8	2.2	3.1	2.6	9.7	1.4	3.2	25.2
1992	9.7	4.1	0.6	14.4	1.7	2.1	3.1	2.6	9.6	1.3	3.1	25.2
1993	9.3	4.1	0.5	14.0	1.6	2.1	3.1	2.6	9.3	1.3	3.0	25.4
1994	9.4	4.2	0.6	14.1	1.6	2.1	3.1	2.7	9.4	1.3	3.0	25.5
1995	9.5	4.2	0.6	14.2	1.5	2.1	3.2	2.5	9.3	1.3	2.9	25.5
1996	9.2	4.2	0.5	14.0	1.5	2.1	3.2	2.6	9.3	1.3	2.9	26.0
1997	9.1	4.3	0.5	13.9	1.4	2.0	3.2	2.6	9.3	1.3	3.0	26.0

Table 5. Food energy contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils								
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
									Percent							
1909-19	0.2	2.7	2.9	4.0	0.9	0.4	1.3	6.5	4.4	0.6	3.1	3.8	0.7	12.6	12.8	0.4
1920-29	0.3	2.8	3.1	3.5	0.9	0.4	1.4	6.1	4.6	0.7	2.7	4.3	1.4	13.6	16.0	0.5
1930-39	0.5	2.7	3.2	3.2	0.9	0.4	1.6	6.0	4.8	0.7	3.5	4.2	2.0	15.2	16.4	0.6
1940-49	0.7	2.5	3.2	2.9	0.8	0.5	1.6	5.8	3.4	1.1	3.2	4.3	2.4	14.4	15.2	0.7
1950-59	0.8	2.4	3.2	2.7	0.5	0.5	1.5	5.2	2.5	2.3	3.9	3.8	3.4	15.9	16.8	0.7
1960-69	0.8	2.1	2.9	2.8	0.4	0.5	1.4	5.1	1.9	2.9	5.1	2.2	4.8	16.9	17.5	0.8
1970	0.9	2.0	2.9	2.8	0.4	0.6	1.5	5.2	1.5	3.0	5.9	1.6	6.0	17.9	18.0	1.0
1971	0.9	2.0	3.0	2.7	0.4	0.6	1.4	5.1	1.4	3.0	5.7	1.5	6.0	17.6	18.0	1.0
1972	1.0	1.9	2.8	2.7	0.4	0.6	1.4	5.1	1.4	3.1	6.0	1.3	6.4	18.1	18.3	1.1
1973	1.0	2.0	2.9	2.7	0.4	0.6	1.5	5.1	1.3	3.1	5.8	1.2	6.9	18.3	18.5	1.1
1974	1.0	2.0	3.0	2.6	0.4	0.6	1.5	5.1	1.2	3.1	5.8	1.1	6.8	18.0	17.9	1.1
1975	1.1	2.1	3.2	2.8	0.4	0.6	1.5	5.3	1.3	3.1	5.9	1.1	6.9	18.3	17.6	1.0
1976	1.1	2.0	3.1	2.7	0.4	0.6	1.5	5.2	1.2	3.2	5.9	1.0	7.1	18.4	17.8	1.1
1977	1.1	2.0	3.1	2.7	0.3	0.6	1.5	5.1	1.2	3.1	5.8	0.9	7.1	18.0	18.3	1.0
1978	1.0	2.1	3.1	2.6	0.3	0.6	1.4	5.0	1.2	3.1	6.1	0.8	7.5	18.6	18.1	1.0
1979	1.0	2.1	3.1	2.6	0.4	0.6	1.4	5.0	1.2	3.0	6.2	1.0	7.4	18.8	17.7	1.0
1980	1.1	2.2	3.3	2.6	0.3	0.6	1.4	4.9	1.2	3.1	6.1	1.2	7.5	19.1	17.7	1.0
1981	1.0	2.2	3.2	2.6	0.4	0.6	1.4	4.9	1.1	3.0	6.2	1.2	7.7	19.2	17.5	1.0
1982	1.0	2.3	3.3	2.6	0.4	0.6	1.4	4.9	1.2	3.0	6.2	1.3	7.7	19.4	17.3	1.0
1983	1.1	2.2	3.4	2.6	0.4	0.6	1.3	4.9	1.3	2.8	6.1	1.4	8.2	19.7	17.2	1.0
1984	0.9	2.4	3.3	2.6	0.4	0.6	1.3	4.9	1.3	2.8	6.9	1.3	7.9	20.1	17.3	1.1
1985	0.9	2.3	3.2	2.5	0.4	0.6	1.3	4.8	1.2	2.8	7.2	1.2	7.9	20.3	17.3	1.1
1986	1.0	2.3	3.4	2.6	0.3	0.6	1.3	4.8	1.2	2.9	7.0	1.1	7.8	20.0	17.0	1.1
1987	1.0	2.5	3.4	2.5	0.3	0.6	1.2	4.6	1.2	2.7	6.7	0.9	8.0	19.4	17.4	1.1
1988	1.0	2.4	3.4	2.4	0.3	0.5	1.2	4.5	1.1	2.6	6.6	0.8	8.2	19.3	17.4	1.0
1989	0.9	2.5	3.4	2.5	0.3	0.6	1.2	4.7	1.1	2.6	6.7	0.7	7.8	18.8	17.6	1.1
1990	0.8	2.4	3.1	2.5	0.3	0.6	1.2	4.7	1.1	2.7	6.8	0.8	7.6	19.0	17.8	1.2
1991	0.8	2.3	3.1	2.5	0.3	0.6	1.2	4.7	1.1	2.6	6.8	1.0	8.1	19.6	17.9	1.2
1992	0.8	2.4	3.2	2.5	0.3	0.6	1.2	4.6	1.1	2.7	6.7	1.2	8.1	19.7	18.0	1.2
1993	1.0	2.3	3.3	2.5	0.3	0.6	1.2	4.6	1.1	2.7	7.4	1.2	7.9	20.2	18.0	1.1
1994	0.9	2.3	3.2	2.5	0.4	0.6	1.2	4.7	1.1	2.3	7.0	1.4	7.9	19.8	18.2	1.1
1995	1.0	2.2	3.2	2.5	0.4	0.6	1.2	4.7	1.1	2.2	6.6	1.5	8.1	19.5	18.7	1.0
1996	1.0	2.3	3.3	2.6	0.4	0.6	1.2	4.8	1.0	2.2	6.5	1.6	7.8	19.1	18.6	1.2
1997	1.0	2.3	3.3	2.5	0.4	0.6	1.2	4.7	1.0	2.0	6.0	1.4	8.4	18.8	18.9	1.2

Table 6. Carbohydrate contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	0.1	0.0	0.0	0.1	2.5	0.7	0.0	0.7	4.0	0.1	2.1	54.8
1920-29	0.1	0.0	0.0	0.1	2.9	0.6	0.0	0.9	4.4	0.1	1.9	47.9
1930-39	0.1	0.0	0.0	0.1	3.1	0.6	0.0	1.2	4.9	0.1	2.3	45.1
1940-49	0.1	0.0	0.0	0.1	4.1	0.5	0.0	1.7	6.4	0.1	2.4	43.0
1950-59	0.1	0.0	0.0	0.1	4.3	0.5	0.1	2.1	6.9	0.2	2.3	38.4
1960-69	0.1	0.0	0.0	0.1	3.9	0.8	0.1	2.1	6.8	0.1	2.2	36.6
1970	0.1	0.0	0.0	0.1	3.4	1.1	0.1	2.1	6.6	0.1	2.2	34.7
1971	0.1	0.0	0.0	0.1	3.3	1.1	0.1	2.1	6.6	0.1	2.2	34.6
1972	0.1	0.0	0.0	0.1	3.2	1.2	0.1	2.1	6.6	0.1	2.1	34.2
1973	0.1	0.0	0.0	0.1	3.0	1.2	0.1	2.2	6.5	0.1	2.4	34.6
1974	0.1	0.0	0.0	0.1	2.9	1.2	0.1	2.0	6.3	0.1	2.1	35.7
1975	0.1	0.0	0.0	0.1	2.8	1.1	0.1	1.9	6.0	0.1	2.3	36.6
1976	0.1	0.0	0.0	0.1	2.6	1.3	0.1	2.0	6.1	0.1	2.2	36.4
1977	0.1	0.0	0.0	0.1	2.5	1.4	0.1	1.9	6.0	0.1	2.2	36.0
1978	0.1	0.0	0.0	0.1	2.5	1.4	0.1	2.0	6.0	0.1	2.1	36.2
1979	0.1	0.0	0.0	0.1	2.3	1.5	0.1	2.0	5.9	0.1	2.2	36.9
1980	0.1	0.0	0.0	0.1	2.2	1.5	0.1	2.0	5.8	0.1	2.0	37.1
1981	0.1	0.0	0.0	0.1	2.1	1.6	0.1	1.9	5.7	0.1	2.1	37.5
1982	0.1	0.0	0.0	0.1	2.0	1.6	0.1	1.9	5.6	0.1	2.3	37.9
1983	0.1	0.0	0.0	0.1	1.9	1.6	0.2	2.0	5.6	0.1	2.3	37.5
1984	0.1	0.0	0.0	0.1	1.9	1.6	0.2	2.0	5.7	0.1	2.0	37.4
1985	0.1	0.0	0.0	0.1	1.7	1.7	0.2	2.0	5.6	0.1	2.3	37.8
1986	0.1	0.0	0.0	0.1	1.6	1.7	0.2	2.1	5.6	0.1	2.2	38.8
1987	0.1	0.0	0.0	0.1	1.5	1.7	0.2	2.0	5.4	0.1	1.8	39.6
1988	0.0	0.0	0.0	0.1	1.4	1.7	0.2	1.9	5.2	0.1	2.1	40.1
1989	0.1	0.0	0.0	0.1	1.3	1.8	0.2	1.8	5.1	0.1	1.9	40.0
1990	0.0	0.0	0.0	0.1	1.2	1.9	0.2	2.0	5.2	0.1	2.0	40.5
1991	0.0	0.0	0.0	0.1	1.1	1.9	0.2	1.9	5.0	0.1	2.1	40.6
1992	0.0	0.0	0.0	0.1	1.1	1.8	0.2	1.9	5.0	0.1	2.1	40.5
1993	0.0	0.0	0.0	0.1	1.0	1.8	0.2	1.9	4.8	0.1	2.0	40.7
1994	0.0	0.0	0.0	0.1	1.0	1.8	0.2	2.0	4.9	0.1	2.0	40.6
1995	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.8	4.7	0.1	2.0	40.3
1996	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.8	4.7	0.1	1.9	40.7
1997	0.0	0.0	0.0	0.1	0.9	1.7	0.2	1.8	4.6	0.1	2.0	40.5

Table 6. Carbohydrate contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
	Percent															
1909-19	0.4	4.8	5.2	6.3	1.4	0.6	1.9	10.2	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.5
1920-29	0.6	5.1	5.7	5.6	1.4	0.6	2.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	29.5	0.7
1930-39	0.9	5.0	5.8	5.2	1.5	0.7	2.4	9.8	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.9
1940-49	1.4	4.8	6.3	5.1	1.4	0.9	2.7	10.1	0.0	0.0	0.0	0.0	0.0	0.0	30.6	1.0
1950-59	1.5	4.8	6.3	5.0	0.9	0.9	2.7	9.5	0.0	0.0	0.0	0.0	0.0	0.0	35.2	1.0
1960-69	1.5	4.3	5.8	5.2	0.8	0.9	2.6	9.5	0.0	0.0	0.0	0.0	0.0	0.0	37.5	1.2
1970	1.8	4.2	6.0	5.3	0.7	1.1	2.7	9.9	0.0	0.0	0.0	0.0	0.0	0.0	39.1	1.2
1971	1.9	4.2	6.1	5.1	0.7	1.2	2.7	9.7	0.0	0.0	0.0	0.0	0.0	0.0	39.3	1.2
1972	2.0	3.8	5.9	5.2	0.7	1.2	2.6	9.7	0.0	0.0	0.0	0.0	0.0	0.0	40.0	1.3
1973	2.0	4.0	6.0	5.0	0.7	1.1	2.7	9.5	0.0	0.0	0.0	0.0	0.0	0.0	39.6	1.2
1974	2.1	4.0	6.1	5.0	0.8	1.2	2.7	9.6	0.0	0.0	0.0	0.0	0.0	0.0	38.8	1.2
1975	2.2	4.2	6.4	5.2	0.8	1.2	2.7	9.9	0.0	0.0	0.0	0.0	0.0	0.0	37.5	1.1
1976	2.2	4.0	6.2	5.1	0.7	1.2	2.6	9.7	0.0	0.0	0.0	0.0	0.0	0.0	38.1	1.1
1977	2.2	4.1	6.2	5.0	0.6	1.2	2.6	9.4	0.0	0.0	0.0	0.0	0.0	0.0	38.9	1.0
1978	2.0	4.3	6.3	4.9	0.7	1.1	2.6	9.3	0.0	0.0	0.0	0.0	0.0	0.0	38.8	1.0
1979	2.0	4.3	6.3	4.9	0.7	1.2	2.6	9.4	0.0	0.0	0.0	0.0	0.0	0.0	38.0	1.0
1980	2.1	4.5	6.6	4.8	0.7	1.1	2.6	9.2	0.0	0.0	0.0	0.0	0.0	0.0	38.0	1.0
1981	2.0	4.4	6.4	4.8	0.7	1.1	2.5	9.2	0.0	0.0	0.0	0.0	0.0	0.0	37.9	1.1
1982	2.0	4.5	6.5	4.8	0.7	1.2	2.5	9.2	0.0	0.0	0.0	0.0	0.0	0.0	37.2	1.1
1983	2.3	4.5	6.8	4.9	0.7	1.1	2.4	9.1	0.0	0.0	0.0	0.0	0.0	0.0	37.3	1.1
1984	1.9	4.7	6.6	4.9	0.7	1.2	2.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0	37.7	1.2
1985	1.9	4.6	6.5	4.7	0.7	1.1	2.4	8.9	0.0	0.0	0.0	0.0	0.0	0.0	37.5	1.2
1986	2.0	4.6	6.7	4.8	0.6	1.1	2.3	8.8	0.0	0.0	0.0	0.0	0.0	0.0	36.6	1.2
1987	1.9	4.8	6.7	4.5	0.6	1.1	2.2	8.3	0.0	0.0	0.0	0.0	0.0	0.0	36.8	1.2
1988	1.9	4.7	6.6	4.4	0.6	1.0	2.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	36.6	1.1
1989	1.7	4.8	6.5	4.5	0.6	1.1	2.1	8.3	0.0	0.0	0.0	0.0	0.0	0.0	36.7	1.2
1990	1.4	4.5	6.0	4.3	0.6	1.2	2.1	8.2	0.0	0.0	0.0	0.0	0.0	0.0	36.8	1.2
1991	1.6	4.4	6.0	4.3	0.6	1.2	2.1	8.2	0.0	0.0	0.0	0.0	0.0	0.0	36.6	1.3
1992	1.6	4.4	6.0	4.3	0.6	1.1	2.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	36.8	1.3
1993	1.9	4.3	6.2	4.4	0.6	1.1	2.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	36.9	1.2
1994	1.8	4.3	6.1	4.4	0.6	1.1	2.1	8.2	0.0	0.0	0.0	0.0	0.0	0.0	37.0	1.1
1995	1.8	4.2	6.0	4.3	0.6	1.1	2.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	37.7	1.0
1996	1.8	4.2	6.0	4.4	0.7	1.1	2.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	37.3	1.1
1997	1.8	4.2	6.0	4.3	0.7	1.1	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	37.6	1.1

Table 7. Dietary fiber contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	49.2
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	44.0
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	39.8
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	36.3
1950-59	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.0	14.0	33.7
1960-69	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.5	33.0
1970	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.4	31.9
1971	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.4	31.7
1972	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.5	0.0	14.8	31.3
1973	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.5	0.0	15.9	31.4
1974	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.4	0.0	14.5	33.2
1975	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	15.5	32.8
1976	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.5	0.0	15.3	32.8
1977	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.5	0.0	15.3	34.0
1978	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.5	0.0	15.0	34.3
1979	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.4	0.0	15.3	34.2
1980	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	14.0	34.6
1981	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	14.6	34.3
1982	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	15.5	34.0
1983	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	15.4	34.0
1984	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	13.9	34.4
1985	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	15.6	34.9
1986	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	14.9	35.6
1987	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	13.2	37.9
1988	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.6	38.6
1989	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.3	38.6
1990	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.5	39.0
1991	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.0	39.1
1992	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.8	38.9
1993	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.4	39.8
1994	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.8	39.7
1995	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.0	40.1
1996	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.2	39.9
1997	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.7	39.7

Table 7. Dietary fiber contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	1.3	11.4	12.8	9.7	3.5	2.3	10.1	25.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
1920-29	2.1	11.8	13.8	9.0	4.2	2.2	12.2	27.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1930-39	3.0	11.2	14.1	8.2	4.6	2.5	13.0	28.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
1940-49	4.3	10.5	14.8	8.0	4.7	3.2	13.8	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
1950-59	3.6	11.1	14.7	8.6	4.0	3.6	14.2	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
1960-69	2.9	10.3	13.2	9.4	3.7	3.6	13.9	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
1970	3.1	10.0	13.1	9.4	3.5	4.3	14.0	31.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
1971	3.1	10.0	13.1	9.0	3.5	4.6	14.0	31.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
1972	3.0	9.3	12.3	9.1	3.6	4.5	13.8	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
1973	2.9	9.5	12.4	8.7	3.6	4.1	13.8	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
1974	3.0	9.5	12.5	8.7	3.7	4.3	13.8	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
1975	3.1	9.9	13.1	8.9	3.6	4.4	13.6	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
1976	3.0	9.5	12.5	8.7	3.6	4.5	13.5	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
1977	2.8	9.7	12.5	8.5	3.2	4.4	13.6	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
1978	2.8	10.0	12.7	8.4	3.3	4.2	13.6	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
1979	2.5	9.9	12.4	8.3	3.5	4.5	13.4	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
1980	2.9	10.2	13.1	8.4	3.4	4.3	13.5	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
1981	2.6	10.1	12.7	8.2	3.5	4.2	13.4	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
1982	2.5	10.1	12.6	8.1	3.6	4.2	13.0	28.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
1983	3.0	9.9	12.9	8.2	3.4	4.2	12.4	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
1984	2.4	10.3	12.7	8.1	3.6	4.5	12.4	28.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
1985	2.3	9.7	12.0	7.7	3.5	4.0	12.1	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
1986	2.5	9.8	12.3	7.9	3.3	4.0	11.7	26.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
1987	2.4	10.5	12.9	7.5	3.3	3.9	10.8	25.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
1988	2.4	9.9	12.4	7.2	3.2	3.7	10.6	24.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
1989	2.2	10.0	12.3	7.4	3.3	4.0	10.7	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
1990	2.0	9.3	11.4	7.1	3.2	4.2	10.6	25.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
1991	1.8	9.0	10.8	7.1	3.1	4.2	10.4	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
1992	2.2	9.2	11.4	7.1	3.3	3.9	10.3	24.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
1993	2.4	9.2	11.6	7.3	3.1	4.0	10.2	24.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
1994	2.3	9.2	11.5	7.4	3.4	4.0	10.3	25.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
1995	2.3	8.9	11.2	7.3	3.5	4.1	10.3	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
1996	2.3	8.9	11.2	7.4	3.7	3.9	10.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
1997	2.4	8.9	11.3	7.2	3.9	3.9	10.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0

Table 8. Protein contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	24.2	3.1	2.6	30.0	9.1	2.5	1.4	1.4	14.5	5.2	4.9	36.7
1920-29	24.0	3.2	2.8	30.1	10.4	2.3	1.7	2.4	16.8	5.8	4.8	32.9
1930-39	23.3	3.4	2.6	29.4	11.0	2.1	2.0	3.6	18.8	5.7	5.7	30.4
1940-49	25.4	4.3	2.3	32.0	12.4	1.7	2.4	4.7	21.3	6.1	5.7	25.5
1950-59	26.6	5.0	2.8	34.4	12.5	1.3	3.5	5.6	22.9	6.9	5.4	21.6
1960-69	27.8	7.2	2.8	37.8	10.8	2.1	4.2	5.2	22.4	6.0	5.4	20.1
1970	28.4	8.5	3.0	39.9	9.3	2.9	4.7	5.0	21.8	5.6	5.3	18.9
1971	28.9	8.5	2.9	40.2	9.0	3.0	4.9	4.9	21.8	5.6	5.3	18.7
1972	28.2	8.8	3.1	40.2	8.7	3.1	5.2	4.6	21.7	5.5	5.7	18.5
1973	26.5	8.6	3.3	38.3	8.4	3.4	5.4	4.9	22.1	5.3	6.3	19.3
1974	28.3	8.6	3.1	39.9	7.9	3.4	5.5	4.3	21.1	5.2	5.9	19.4
1975	26.7	8.5	3.1	38.4	7.9	3.1	5.6	4.0	20.6	5.2	6.6	20.4
1976	27.1	8.9	3.2	39.2	7.3	3.7	5.8	4.0	20.8	4.8	6.3	20.1
1977	27.1	9.0	3.2	39.2	7.0	3.9	6.0	3.9	20.9	4.8	6.5	20.1
1978	26.4	9.4	3.4	39.2	6.9	3.9	6.3	3.9	21.0	5.0	6.3	20.1
1979	25.4	10.0	3.3	38.6	6.5	4.0	6.4	4.0	20.9	5.0	6.6	20.5
1980	25.9	10.1	3.2	39.3	6.2	4.1	6.5	3.8	20.7	5.0	6.0	20.6
1981	25.8	10.4	3.2	39.5	6.0	4.2	6.6	3.5	20.3	4.8	6.3	20.6
1982	24.9	10.5	3.1	38.4	5.7	4.3	7.2	3.5	20.6	4.8	6.8	20.9
1983	25.3	10.4	3.3	39.0	5.5	4.3	7.2	3.6	20.6	4.7	6.7	20.5
1984	25.1	10.6	3.4	39.1	5.3	4.4	7.5	3.7	20.9	4.6	6.2	20.5
1985	24.6	10.6	3.5	38.7	5.0	4.5	7.6	3.6	20.7	4.4	6.8	21.0
1986	24.4	10.8	3.5	38.8	4.6	4.7	7.6	3.8	20.7	4.3	6.5	21.2
1987	23.5	11.6	3.6	38.7	4.4	4.8	7.8	3.7	20.7	4.3	5.9	22.1
1988	23.5	11.6	3.5	38.6	4.1	4.8	7.6	3.6	20.1	4.1	6.5	22.6
1989	23.1	12.1	3.7	38.9	3.8	5.2	7.6	3.5	20.0	4.0	6.2	22.6
1990	22.2	12.4	3.5	38.2	3.5	5.3	7.7	3.8	20.2	3.9	6.1	23.3
1991	22.0	12.7	3.5	38.2	3.3	5.4	7.7	3.6	19.9	3.8	6.4	23.4
1992	22.0	13.0	3.4	38.5	3.1	5.3	7.8	3.6	19.8	3.8	6.3	23.4
1993	21.6	13.4	3.4	38.3	3.0	5.2	7.7	3.5	19.5	3.8	6.1	24.0
1994	21.7	13.3	3.4	38.4	2.9	5.2	7.7	4.0	19.8	3.8	6.1	23.8
1995	22.1	13.3	3.4	38.9	2.8	5.2	7.9	3.6	19.5	3.7	6.1	23.8
1996	21.5	13.5	3.3	38.3	2.7	5.2	7.9	3.7	19.5	3.7	5.9	24.2
1997	21.2	13.8	3.3	38.3	2.6	5.1	7.9	3.7	19.4	3.7	6.1	24.2

Table 8. Protein contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.2	0.9	1.1	3.7	0.6	0.5	2.1	6.9	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.7
1920-29	0.2	1.0	1.3	3.3	0.7	0.5	2.5	7.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.1
1930-39	0.4	1.0	1.4	3.0	0.8	0.6	2.8	7.1	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.3
1940-49	0.5	0.9	1.4	2.6	0.7	0.6	2.6	6.5	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.4
1950-59	0.5	0.8	1.3	2.4	0.5	0.6	2.4	5.9	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.3
1960-69	0.4	0.7	1.2	2.4	0.4	0.5	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1970	0.5	0.7	1.2	2.5	0.4	0.6	2.2	5.7	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1971	0.5	0.7	1.2	2.4	0.4	0.7	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1972	0.6	0.6	1.2	2.4	0.4	0.7	2.1	5.5	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1973	0.6	0.7	1.2	2.4	0.4	0.6	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1974	0.6	0.7	1.2	2.3	0.4	0.6	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1975	0.6	0.7	1.3	2.5	0.4	0.7	2.3	5.9	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1976	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.7	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1977	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.3
1978	0.6	0.7	1.3	2.4	0.4	0.6	2.2	5.5	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1979	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1980	0.6	0.7	1.3	2.3	0.4	0.7	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1981	0.6	0.7	1.3	2.3	0.4	0.6	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1982	0.6	0.8	1.3	2.3	0.4	0.7	2.1	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1983	0.6	0.7	1.4	2.4	0.4	0.6	2.1	5.5	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1984	0.5	0.8	1.3	2.4	0.4	0.7	2.1	5.5	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1985	0.5	0.8	1.3	2.3	0.4	0.6	2.0	5.4	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1986	0.6	0.8	1.3	2.3	0.4	0.6	2.0	5.3	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1987	0.5	0.8	1.4	2.2	0.4	0.6	1.8	5.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1988	0.6	0.8	1.3	2.2	0.4	0.6	1.8	5.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.6
1989	0.5	0.8	1.3	2.3	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.7
1990	0.4	0.8	1.2	2.2	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.8
1991	0.5	0.7	1.2	2.2	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.8
1992	0.5	0.8	1.2	2.2	0.4	0.6	1.9	5.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.8
1993	0.6	0.8	1.3	2.3	0.4	0.7	1.8	5.2	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1994	0.5	0.7	1.3	2.3	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.5
1995	0.5	0.7	1.3	2.3	0.4	0.7	1.8	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.5
1996	0.5	0.7	1.3	2.3	0.5	0.6	1.8	5.3	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.7
1997	0.6	0.7	1.3	2.3	0.5	0.6	1.8	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.6

Table 9. Fat contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	32.3	1.5	0.7	34.5	8.4	0.2	1.3	4.8	14.8	3.3	2.2	4.0
1920-29	29.9	1.4	0.6	31.9	8.8	0.2	1.4	6.2	16.7	3.4	2.7	3.3
1930-39	27.3	1.4	0.5	29.3	8.8	0.2	1.6	6.6	17.2	3.1	3.0	2.8
1940-49	30.2	1.8	0.5	32.5	10.1	0.2	1.8	6.1	18.2	3.4	3.5	2.3
1950-59	30.3	2.1	0.5	32.8	9.3	0.2	2.2	4.8	16.6	3.7	3.3	1.8
1960-69	30.9	3.1	0.4	34.4	7.7	0.3	2.6	3.8	14.4	3.1	3.6	1.6
1970	30.4	4.0	0.4	34.7	6.2	0.6	2.8	3.1	12.7	2.9	3.5	1.4
1971	31.2	4.0	0.4	35.6	6.1	0.6	2.9	3.0	12.6	2.9	3.5	1.4
1972	29.7	4.1	0.4	34.2	5.9	0.7	3.1	3.0	12.6	2.8	3.7	1.4
1973	28.0	4.0	0.4	32.5	5.7	0.8	3.3	3.0	12.9	2.7	3.8	1.5
1974	29.5	4.0	0.4	33.8	5.3	0.8	3.5	3.0	12.5	2.7	3.5	1.9
1975	27.4	4.0	0.3	31.7	5.2	0.8	3.5	3.2	12.8	2.7	3.9	2.0
1976	27.7	4.2	0.4	32.2	4.9	0.9	3.7	3.0	12.5	2.5	3.6	1.9
1977	28.0	4.3	0.4	32.6	4.7	1.0	3.9	3.0	12.6	2.5	3.6	2.1
1978	26.9	4.4	0.4	31.7	4.5	1.0	4.0	3.0	12.6	2.6	3.7	2.1
1979	26.5	4.6	0.4	31.5	4.3	1.1	4.1	2.9	12.3	2.6	3.6	2.1
1980	26.8	4.6	0.3	31.8	4.0	1.1	4.1	2.9	12.1	2.5	3.2	2.0
1981	26.1	4.8	0.4	31.2	3.8	1.1	4.3	3.0	12.2	2.5	3.5	2.0
1982	24.6	4.8	0.3	29.7	3.6	1.2	4.7	3.0	12.5	2.5	3.8	2.1
1983	24.8	4.7	0.3	29.8	3.5	1.2	4.7	3.0	12.4	2.4	3.8	2.0
1984	24.0	4.7	0.3	29.1	3.3	1.2	4.8	3.1	12.4	2.3	3.8	2.0
1985	23.3	4.8	0.3	28.4	3.1	1.2	4.9	3.1	12.3	2.2	3.8	2.1
1986	22.7	5.0	0.3	28.0	3.0	1.3	5.0	3.2	12.6	2.2	3.9	2.2
1987	22.1	5.4	0.3	27.8	2.9	1.4	5.3	3.3	12.9	2.3	3.9	2.3
1988	22.2	5.4	0.3	27.9	2.7	1.4	5.1	3.2	12.4	2.2	4.1	2.4
1989	22.1	5.7	0.3	28.2	2.6	1.5	5.2	3.3	12.6	2.2	4.2	2.5
1990	21.0	5.9	0.4	27.3	2.4	1.5	5.3	3.3	12.5	2.1	3.9	2.6
1991	18.2	6.2	0.3	24.7	2.3	1.5	5.4	3.3	12.6	2.1	4.0	2.7
1992	18.0	6.4	0.3	24.7	2.2	1.5	5.5	3.2	12.4	2.1	3.8	2.9
1993	17.2	6.4	0.3	23.9	2.0	1.4	5.5	3.2	12.1	2.1	3.8	2.9
1994	17.5	6.5	0.3	24.3	2.0	1.5	5.6	3.2	12.3	2.1	3.7	2.9
1995	17.8	6.6	0.3	24.8	2.0	1.4	5.7	3.2	12.3	2.1	3.5	3.0
1996	17.5	6.8	0.3	24.6	1.9	1.4	5.9	3.3	12.5	2.1	3.6	3.0
1997	17.3	7.0	0.3	24.6	1.9	1.4	5.9	3.4	12.6	2.2	3.7	3.0

Table 9. Fat contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.0	0.5	0.5	0.1	0.1	0.1	0.3	0.6	14.1	1.8	9.9	11.8	2.2	39.8	0.0	0.3
1920-29	0.0	0.5	0.5	0.1	0.1	0.1	0.3	0.6	13.8	1.9	8.1	12.5	4.1	40.5	0.0	0.4
1930-39	0.0	0.4	0.5	0.1	0.1	0.1	0.3	0.6	13.7	1.9	9.9	11.8	5.6	43.0	0.0	0.5
1940-49	0.1	0.4	0.4	0.1	0.1	0.1	0.3	0.6	9.2	3.0	8.6	11.4	6.3	38.5	0.0	0.5
1950-59	0.0	0.4	0.4	0.1	0.1	0.1	0.3	0.5	6.5	5.9	9.8	9.5	8.7	40.4	0.0	0.5
1960-69	0.0	0.3	0.4	0.1	0.0	0.1	0.2	0.4	4.6	7.0	12.6	5.4	11.9	41.5	0.0	0.6
1970	0.0	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.6	7.2	14.2	3.8	14.5	43.4	0.0	0.7
1971	0.1	0.3	0.3	0.1	0.0	0.1	0.2	0.4	3.4	7.3	13.7	3.5	14.6	42.6	0.0	0.7
1972	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.3	7.4	14.4	3.1	15.6	43.8	0.0	0.7
1973	0.1	0.3	0.3	0.1	0.0	0.1	0.2	0.4	3.3	7.6	14.4	2.8	17.1	45.2	0.0	0.7
1974	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.6	14.1	2.6	16.7	44.0	0.0	0.7
1975	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.5	3.3	7.7	14.5	2.7	17.2	45.4	0.0	0.6
1976	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.5	2.9	8.0	14.7	2.4	17.8	45.7	0.0	0.7
1977	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.5	2.9	7.7	14.5	2.1	17.8	45.1	0.0	0.7
1978	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.6	14.9	2.0	18.5	46.0	0.0	0.7
1979	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.5	15.2	2.4	18.3	46.5	0.0	0.6
1980	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.5	14.9	3.0	18.5	46.9	0.0	0.7
1981	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.8	7.4	15.1	2.8	18.8	47.0	0.0	0.7
1982	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.3	15.3	3.2	19.1	47.8	0.0	0.7
1983	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.2	6.7	14.7	3.3	20.0	48.0	0.0	0.7
1984	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	3.1	6.6	16.8	3.0	19.1	48.7	0.0	0.8
1985	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.0	6.7	17.6	2.8	19.3	49.5	0.0	0.8
1986	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.2	17.2	2.7	19.4	49.4	0.0	0.8
1987	0.1	0.5	0.6	0.1	0.0	0.1	0.2	0.4	3.0	6.7	16.8	2.1	20.4	49.1	0.0	0.8
1988	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	6.5	16.8	2.0	21.0	49.2	0.0	0.8
1989	0.1	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.8	6.6	17.3	1.7	20.1	48.5	0.0	0.9
1990	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.0	17.8	1.9	20.1	49.7	0.0	0.9
1991	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	6.9	18.1	2.5	21.6	52.0	0.0	0.9
1992	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.8	7.0	17.7	3.2	21.4	52.2	0.0	0.9
1993	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.0	19.5	3.0	20.9	53.4	0.0	0.9
1994	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.0	6.2	18.8	3.7	21.2	52.9	0.0	0.9
1995	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	5.9	18.0	3.9	21.9	52.6	0.0	0.8
1996	0.0	0.5	0.5	0.1	0.1	0.1	0.2	0.5	2.8	5.9	17.9	4.2	21.4	52.2	0.0	1.0
1997	0.1	0.5	0.5	0.1	0.1	0.1	0.2	0.5	2.7	5.5	16.7	3.8	23.3	51.9	0.0	0.9

Table 10. Saturated fatty acids contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	30.3	1.0	0.3	31.5	12.5	0.3	2.0	7.1	22.0	2.5	0.9	1.6
1920-29	27.5	0.9	0.3	28.7	13.0	0.3	2.2	9.2	24.6	2.5	1.3	1.3
1930-39	25.2	0.9	0.2	26.4	13.0	0.3	2.4	9.7	25.3	2.3	1.5	1.1
1940-49	29.0	1.3	0.2	30.4	15.4	0.3	2.8	9.3	27.8	2.6	1.6	1.0
1950-59	30.1	1.5	0.2	31.8	14.7	0.3	3.6	7.6	26.1	2.9	1.9	0.8
1960-69	32.3	2.3	0.2	34.8	12.5	0.5	4.3	6.2	23.6	2.5	2.0	0.7
1970	34.4	3.2	0.2	37.8	11.0	1.1	5.0	5.5	22.6	2.5	1.9	0.7
1971	35.2	3.2	0.2	38.6	10.7	1.1	5.3	5.3	22.4	2.5	2.0	0.7
1972	34.1	3.3	0.2	37.7	10.4	1.2	5.7	5.3	22.7	2.5	2.1	0.7
1973	32.7	3.3	0.2	36.2	10.4	1.4	6.1	5.5	23.4	2.5	2.1	0.7
1974	34.2	3.3	0.2	37.7	9.6	1.4	6.5	5.4	22.8	2.4	1.9	1.1
1975	31.6	3.4	0.2	35.1	9.6	1.5	6.7	5.8	23.6	2.5	2.1	1.2
1976	32.0	3.5	0.2	35.7	9.0	1.7	7.0	5.5	23.2	2.3	2.0	1.1
1977	32.1	3.6	0.2	35.9	8.6	1.8	7.3	5.5	23.2	2.3	1.9	1.2
1978	31.0	3.7	0.2	34.9	8.3	1.9	7.7	5.5	23.3	2.4	2.0	1.2
1979	30.5	3.9	0.2	34.6	7.9	2.0	7.7	5.4	23.0	2.4	1.9	1.2
1980	30.7	3.9	0.2	34.8	7.4	2.0	7.8	5.4	22.6	2.3	1.7	1.2
1981	30.2	4.1	0.2	34.4	7.1	2.1	8.1	5.6	22.9	2.3	1.9	1.2
1982	28.6	4.1	0.2	32.9	6.8	2.2	9.0	5.6	23.6	2.3	2.0	1.2
1983	28.8	4.0	0.2	33.0	6.5	2.2	9.0	5.7	23.4	2.2	2.0	1.2
1984	27.9	4.1	0.2	32.1	6.2	2.3	9.2	5.7	23.3	2.2	2.0	1.2
1985	27.1	4.1	0.2	31.3	5.8	2.3	9.3	5.8	23.2	2.1	2.0	1.2
1986	26.2	4.2	0.2	30.6	5.5	2.5	9.5	5.9	23.5	2.1	2.1	1.3
1987	25.7	4.6	0.2	30.5	5.4	2.6	10.1	6.2	24.3	2.1	2.2	1.3
1988	26.1	4.7	0.2	31.0	5.2	2.6	9.9	6.1	23.8	2.1	2.2	1.4
1989	26.0	5.0	0.2	31.2	4.9	2.8	10.1	6.3	24.1	2.0	2.3	1.5
1990	24.9	5.2	0.2	30.3	4.5	2.8	10.4	6.2	24.0	2.0	2.2	1.6
1991	21.6	5.5	0.2	27.3	4.4	3.0	10.7	6.3	24.4	2.1	2.2	1.7
1992	21.1	5.6	0.2	26.9	4.2	2.9	10.7	6.2	23.9	2.0	2.2	1.9
1993	20.3	5.7	0.2	26.2	3.9	2.7	10.7	6.1	23.5	2.0	2.1	1.9
1994	20.7	5.8	0.2	26.8	3.9	2.8	11.0	6.3	24.0	2.0	2.1	2.0
1995	21.1	5.9	0.2	27.2	3.8	2.7	11.3	6.2	24.0	2.0	2.0	2.0
1996	20.8	6.0	0.2	27.0	3.7	2.7	11.6	6.4	24.3	2.1	2.1	2.0
1997	20.9	6.2	0.2	27.3	3.7	2.6	11.9	6.7	24.9	2.1	2.2	2.0

Table 10. Saturated fatty acids contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
									Percent							
1909-19	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	21.0	1.4	5.9	11.1	1.4	40.7	0.0	0.3
1920-29	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	20.4	1.3	4.8	11.6	2.5	40.7	0.0	0.5
1930-39	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	20.3	1.1	5.9	10.9	4.2	42.3	0.0	0.6
1940-49	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	14.0	1.6	5.3	11.0	3.7	35.5	0.0	0.6
1950-59	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	10.2	3.0	6.8	9.5	6.0	35.5	0.0	0.6
1960-69	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	7.5	3.8	10.0	5.6	8.3	35.3	0.0	0.6
1970	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	6.4	4.2	11.9	4.2	6.8	33.4	0.0	0.7
1971	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	6.1	4.3	11.8	3.9	6.7	32.8	0.0	0.7
1972	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.9	4.4	12.3	3.5	7.2	33.2	0.0	0.8
1973	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.9	4.4	12.1	3.2	8.3	33.9	0.0	0.8
1974	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.5	4.6	12.0	3.0	7.9	33.1	0.0	0.7
1975	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	6.1	4.5	12.3	3.2	8.4	34.4	0.0	0.7
1976	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.4	4.6	13.0	2.8	8.7	34.5	0.0	0.7
1977	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.4	4.5	13.2	2.5	8.7	34.3	0.0	0.7
1978	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.5	4.5	13.8	2.3	9.0	35.0	0.0	0.7
1979	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.6	4.4	13.9	2.9	8.9	35.8	0.0	0.7
1980	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.5	4.5	13.6	3.8	8.9	36.3	0.0	0.7
1981	0.0	0.2	0.3	0.1	0.0	0.0	0.1	0.2	5.3	4.4	13.9	3.6	9.0	36.1	0.0	0.7
1982	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.2	13.8	4.1	9.1	36.7	0.0	0.8
1983	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	6.0	3.9	13.3	4.4	9.4	37.0	0.0	0.8
1984	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.9	3.8	15.2	4.0	9.0	37.9	0.0	0.8
1985	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.7	3.9	16.2	3.8	9.2	38.8	0.0	0.9
1986	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.1	15.7	3.6	10.3	39.1	0.0	0.9
1987	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.6	3.8	15.3	2.8	10.6	38.1	0.0	0.9
1988	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.8	15.4	2.6	10.8	38.1	0.0	0.9
1989	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.9	15.7	2.1	10.3	37.4	0.0	1.0
1990	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.5	4.1	15.9	2.5	10.4	38.3	0.0	1.1
1991	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.5	4.1	15.8	3.5	11.8	40.7	0.0	1.1
1992	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.1	15.3	4.5	12.2	41.5	0.0	1.1
1993	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.7	4.1	16.7	4.3	12.0	42.7	0.0	1.0
1994	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.9	3.7	16.2	5.1	10.7	41.7	0.0	0.9
1995	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.6	3.5	15.6	5.4	11.2	41.4	0.0	0.9
1996	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.5	15.4	5.9	10.7	40.9	0.0	1.1
1997	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.3	3.2	14.5	5.3	11.7	39.9	0.0	1.0

Table 11. Monounsaturated fatty acids contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	37.3	1.5	0.7	39.5	6.2	0.1	1.0	3.5	10.8	3.2	2.4	1.7
1920-29	35.1	1.5	0.6	37.1	6.6	0.1	1.0	4.7	12.4	3.3	2.9	1.4
1930-39	32.1	1.5	0.5	34.1	6.6	0.1	1.2	5.0	12.9	3.1	3.2	1.2
1940-49	35.1	1.8	0.4	37.3	7.4	0.1	1.3	4.6	13.4	3.3	3.9	0.9
1950-59	34.7	2.1	0.4	37.2	6.8	0.1	1.6	3.6	12.0	3.6	3.5	0.7
1960-69	35.6	3.2	0.3	39.1	5.6	0.2	1.8	2.8	10.5	3.0	3.9	0.6
1970	34.1	4.0	0.3	38.4	4.4	0.4	1.9	2.2	9.0	2.7	3.8	0.5
1971	35.2	4.0	0.3	39.4	4.3	0.5	2.0	2.2	9.0	2.7	3.8	0.5
1972	33.5	4.1	0.3	37.9	4.2	0.5	2.2	2.1	9.0	2.6	4.0	0.5
1973	31.9	4.1	0.3	36.3	4.1	0.6	2.3	2.2	9.2	2.6	4.2	0.5
1974	33.4	4.0	0.3	37.7	3.8	0.5	2.5	2.2	9.0	2.5	3.9	1.0
1975	30.6	4.1	0.3	34.9	3.8	0.6	2.5	2.3	9.2	2.6	4.4	1.0
1976	30.3	4.2	0.3	34.8	3.5	0.7	2.6	2.1	8.8	2.4	3.9	1.0
1977	30.8	4.3	0.3	35.4	3.4	0.7	2.7	2.1	8.9	2.4	3.9	1.1
1978	29.6	4.4	0.3	34.4	3.2	0.7	2.8	2.1	8.9	2.4	4.1	1.1
1979	29.2	4.6	0.3	34.1	3.0	0.7	2.8	2.1	8.7	2.4	4.0	1.1
1980	29.6	4.6	0.3	34.5	2.9	0.8	2.9	2.1	8.6	2.4	3.5	1.1
1981	28.7	4.8	0.3	33.8	2.7	0.8	3.0	2.1	8.6	2.3	3.9	1.1
1982	27.0	4.8	0.2	32.1	2.6	0.8	3.3	2.2	8.8	2.3	4.3	1.1
1983	27.4	4.7	0.3	32.4	2.5	0.8	3.3	2.2	8.8	2.2	4.2	1.1
1984	26.3	4.7	0.2	31.2	2.3	0.8	3.3	2.2	8.7	2.2	4.3	1.1
1985	25.4	4.7	0.2	30.4	2.2	0.9	3.4	2.2	8.6	2.1	4.3	1.1
1986	24.7	4.9	0.3	29.9	2.1	0.9	3.5	2.3	8.8	2.1	4.3	1.1
1987	24.0	5.3	0.2	29.6	2.1	1.0	3.6	2.3	9.0	2.1	4.3	1.2
1988	24.2	5.3	0.2	29.7	1.9	1.0	3.5	2.3	8.7	2.0	4.5	1.3
1989	24.0	5.6	0.3	29.9	1.8	1.0	3.6	2.3	8.7	2.0	4.7	1.4
1990	22.6	5.8	0.3	28.7	1.6	1.0	3.6	2.3	8.6	2.0	4.3	1.4
1991	21.0	5.9	0.2	27.2	1.6	1.0	3.6	2.2	8.5	1.9	4.3	1.4
1992	20.9	6.1	0.2	27.2	1.5	1.0	3.7	2.2	8.4	1.9	4.1	1.6
1993	19.8	6.1	0.2	26.1	1.4	1.0	3.6	2.1	8.0	1.8	4.0	1.6
1994	20.0	6.2	0.2	26.4	1.3	1.0	3.6	2.2	8.1	1.8	3.8	1.6
1995	20.5	6.3	0.3	27.1	1.3	0.9	3.8	2.2	8.2	1.9	3.7	1.7
1996	20.0	6.4	0.3	26.7	1.3	0.9	3.9	2.2	8.3	1.9	3.8	1.7
1997	20.0	6.6	0.3	26.9	1.3	0.9	3.9	2.3	8.5	1.9	3.9	1.7

Table 11. Monounsaturated fatty acids contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.2	10.4	1.9	14.3	13.6	1.6	41.7	0.0	0.3
1920-29	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	10.3	2.2	11.9	14.6	3.0	42.0	0.0	0.4
1930-39	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	10.3	2.2	14.5	13.8	3.8	44.6	0.0	0.5
1940-49	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	6.8	3.4	12.4	13.2	4.4	40.1	0.0	0.5
1950-59	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	4.7	6.5	13.6	10.9	6.2	42.0	0.0	0.4
1960-69	0.0	0.3	0.4	0.0	0.0	0.0	0.1	0.1	3.4	7.6	16.9	6.2	7.8	41.9	0.0	0.5
1970	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.6	7.6	18.6	4.2	11.3	44.4	0.0	0.6
1971	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.5	7.7	17.8	3.9	11.5	43.4	0.0	0.7
1972	0.0	0.3	0.4	0.0	0.0	0.0	0.1	0.1	2.4	7.8	18.8	3.4	12.4	44.7	0.0	0.7
1973	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.4	8.0	19.1	3.2	13.3	45.9	0.0	0.7
1974	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.2	8.0	18.6	3.0	13.0	44.8	0.0	0.7
1975	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.4	8.2	19.5	3.1	13.5	46.7	0.0	0.6
1976	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.1	8.4	20.8	2.7	13.9	47.9	0.0	0.7
1977	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.1	8.1	20.3	2.4	14.1	47.0	0.0	0.6
1978	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.1	8.0	21.0	2.2	14.6	47.9	0.0	0.6
1979	0.0	0.3	0.4	0.0	0.0	0.0	0.1	0.1	2.2	7.8	21.5	2.7	14.4	48.5	0.0	0.6
1980	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.1	7.9	21.1	3.3	14.5	48.9	0.0	0.6
1981	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	7.7	21.5	3.1	14.8	49.1	0.0	0.7
1982	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.1	7.6	22.0	3.4	15.1	50.1	0.0	0.6
1983	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.3	7.0	21.2	3.6	16.0	50.0	0.0	0.7
1984	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.2	6.8	24.0	3.2	15.1	51.2	0.0	0.7
1985	0.0	0.5	0.6	0.0	0.0	0.0	0.1	0.1	2.1	6.9	24.9	3.0	15.2	52.1	0.0	0.7
1986	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.1	7.3	24.4	2.9	15.8	52.5	0.0	0.7
1987	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.1	6.8	24.2	2.3	16.9	52.3	0.0	0.7
1988	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	6.6	24.4	2.2	17.2	52.4	0.0	0.7
1989	0.0	0.5	0.6	0.0	0.0	0.0	0.1	0.1	2.0	6.7	25.1	1.8	16.3	51.9	0.0	0.8
1990	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	7.1	26.1	2.1	16.4	53.7	0.0	0.8
1991	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	1.9	6.8	26.8	2.6	17.2	55.3	0.0	0.8
1992	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	1.9	6.9	26.2	3.3	17.1	55.4	0.0	0.8
1993	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.0	6.7	28.6	3.1	16.6	57.0	0.0	0.7
1994	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.0	6.0	27.5	3.7	17.7	56.9	0.0	0.7
1995	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.0	5.6	26.4	4.0	18.3	56.2	0.0	0.7
1996	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	1.9	5.7	26.4	4.3	17.8	56.0	0.0	0.8
1997	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	1.8	5.3	24.8	3.8	20.0	55.7	0.0	0.8

Table 12. Polyunsaturated fatty acids contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	25.3	2.9	1.8	29.9	2.8	0.1	0.4	1.6	4.8	4.2	6.8	15.8
1920-29	22.9	2.6	1.8	27.3	2.8	0.1	0.4	2.0	5.2	4.0	7.6	12.0
1930-39	20.4	2.6	1.8	24.8	2.7	0.1	0.4	2.1	5.2	3.7	8.0	10.1
1940-49	20.6	3.1	1.4	25.0	2.8	0.1	0.4	1.7	5.0	3.7	8.8	7.6
1950-59	18.5	3.3	1.2	23.1	2.4	0.1	0.5	1.3	4.2	3.7	7.4	5.5
1960-69	15.9	4.4	0.9	21.2	1.8	0.1	0.5	0.9	3.2	2.7	7.0	4.3
1970	13.3	5.0	0.8	19.1	1.3	0.1	0.5	0.7	2.5	2.2	6.1	3.4
1971	14.0	5.0	0.7	19.7	1.3	0.1	0.5	0.6	2.5	2.2	6.2	3.4
1972	12.6	5.0	0.8	18.3	1.2	0.1	0.5	0.6	2.4	2.1	6.3	3.2
1973	11.1	4.7	0.8	16.6	1.1	0.2	0.5	0.6	2.4	2.0	6.3	3.2
1974	11.9	4.7	0.7	17.3	1.0	0.2	0.6	0.6	2.3	2.0	6.1	4.0
1975	10.4	4.7	0.6	15.7	1.0	0.2	0.6	0.6	2.3	1.9	6.7	4.1
1976	10.0	4.7	0.6	15.3	0.9	0.2	0.6	0.6	2.2	1.8	5.9	3.8
1977	10.4	4.8	0.6	15.8	0.9	0.2	0.6	0.6	2.2	1.8	5.9	4.1
1978	9.9	4.9	0.6	15.4	0.8	0.2	0.6	0.6	2.2	1.8	5.8	4.0
1979	10.2	5.1	0.6	15.9	0.8	0.2	0.6	0.5	2.1	1.8	5.8	4.0
1980	10.5	5.1	0.6	16.2	0.7	0.2	0.6	0.5	2.1	1.7	5.2	4.0
1981	10.0	5.2	0.6	15.8	0.7	0.2	0.6	0.5	2.1	1.7	5.6	3.9
1982	9.1	5.2	0.5	14.9	0.7	0.2	0.7	0.5	2.1	1.7	6.0	3.9
1983	9.2	5.1	0.5	14.8	0.6	0.2	0.7	0.5	2.0	1.6	5.9	3.8
1984	9.1	5.2	0.5	14.8	0.6	0.2	0.7	0.6	2.1	1.6	6.0	3.9
1985	8.8	5.2	0.6	14.5	0.6	0.2	0.7	0.6	2.1	1.5	6.0	4.0
1986	8.6	5.6	0.6	14.7	0.5	0.2	0.7	0.6	2.1	1.6	6.2	4.3
1987	8.3	5.9	0.6	14.8	0.5	0.2	0.8	0.6	2.1	1.5	6.1	4.4
1988	8.3	5.8	0.5	14.7	0.5	0.2	0.7	0.6	2.0	1.5	6.3	4.6
1989	8.4	6.2	0.6	15.1	0.5	0.3	0.8	0.6	2.1	1.4	6.5	4.8
1990	7.9	6.5	0.6	15.0	0.4	0.3	0.8	0.6	2.0	1.4	6.0	5.0
1991	7.5	6.5	0.5	14.6	0.4	0.3	0.8	0.6	2.0	1.4	6.0	5.0
1992	7.7	6.8	0.5	15.0	0.4	0.3	0.8	0.6	2.0	1.4	5.8	5.2
1993	7.4	6.9	0.5	14.8	0.4	0.2	0.8	0.6	2.0	1.4	5.6	5.2
1994	7.5	7.1	0.5	15.1	0.4	0.3	0.8	0.6	2.0	1.4	5.6	5.3
1995	7.6	7.1	0.5	15.2	0.3	0.2	0.8	0.6	2.0	1.4	5.3	5.3
1996	7.3	7.3	0.5	15.1	0.3	0.2	0.8	0.6	2.0	1.4	5.3	5.5
1997	7.1	7.3	0.5	14.8	0.3	0.2	0.8	0.6	2.0	1.4	5.5	5.4

Table 12. Polyunsaturated fatty acids contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils								
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
									Percent							
1909-19	0.0	1.2	1.2	0.5	0.3	0.5	1.1	2.4	4.8	3.1	6.2	12.2	8.5	34.7	0.0	0.3
1920-29	0.0	1.1	1.1	0.4	0.3	0.4	1.1	2.2	4.5	3.9	4.9	12.2	14.7	40.2	0.0	0.4
1930-39	0.1	1.0	1.0	0.3	0.3	0.4	1.1	2.2	4.4	4.8	5.8	11.3	18.4	44.7	0.0	0.4
1940-49	0.1	0.8	0.8	0.3	0.3	0.4	1.0	2.0	2.7	7.0	4.7	10.0	22.3	46.8	0.0	0.3
1950-59	0.1	0.6	0.7	0.2	0.2	0.3	0.8	1.5	1.8	13.2	5.4	7.8	25.4	53.6	0.0	0.3
1960-69	0.1	0.5	0.5	0.2	0.1	0.2	0.7	1.2	1.1	14.6	6.6	3.9	33.3	59.4	0.0	0.4
1970	0.1	0.4	0.5	0.2	0.1	0.2	0.6	1.1	0.8	13.7	7.6	2.4	40.0	64.4	0.0	0.6
1971	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.7	13.4	7.3	2.2	40.1	63.8	0.0	0.6
1972	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.7	13.6	7.6	1.9	41.6	65.4	0.0	0.7
1973	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.6	13.8	7.3	1.7	43.9	67.3	0.0	0.7
1974	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.6	13.4	7.1	1.6	43.4	66.1	0.0	0.7
1975	0.1	0.4	0.5	0.2	0.1	0.2	0.6	1.0	0.7	13.6	7.4	1.6	43.8	67.1	0.0	0.6
1976	0.1	0.4	0.4	0.2	0.1	0.2	0.5	1.0	0.6	13.8	9.9	1.4	43.3	68.9	0.0	0.7
1977	0.1	0.4	0.5	0.2	0.1	0.2	0.5	1.0	0.6	13.4	9.4	1.2	43.3	68.0	0.0	0.7
1978	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	13.1	9.3	1.1	44.7	68.8	0.0	0.7
1979	0.1	0.4	0.4	0.2	0.1	0.2	0.5	0.9	0.6	12.8	9.6	1.3	44.1	68.4	0.0	0.7
1980	0.1	0.4	0.4	0.2	0.1	0.2	0.5	0.9	0.6	12.9	9.4	1.4	44.6	68.8	0.0	0.7
1981	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.6	9.3	1.3	45.0	68.8	0.0	0.7
1982	0.1	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.6	9.5	1.4	45.3	69.3	0.0	0.7
1983	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.5	9.2	1.2	47.3	69.8	0.0	0.7
1984	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.6	10.3	1.2	45.9	69.5	0.0	0.7
1985	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.6	10.5	1.1	46.1	69.8	0.0	0.7
1986	0.1	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	12.8	10.5	1.1	44.0	68.9	0.0	0.7
1987	0.1	0.5	0.6	0.2	0.1	0.2	0.4	0.9	0.6	11.7	10.0	0.9	45.7	68.9	0.0	0.7
1988	0.1	0.5	0.5	0.2	0.1	0.2	0.4	0.9	0.5	11.1	9.6	0.9	46.7	68.8	0.0	0.7
1989	0.1	0.5	0.6	0.2	0.1	0.2	0.5	0.9	0.5	11.4	9.9	0.8	45.2	67.9	0.0	0.8
1990	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.2	10.4	0.9	44.3	68.3	0.0	0.8
1991	0.0	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.5	11.7	9.9	1.0	45.8	68.8	0.0	0.8
1992	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.1	9.8	1.1	44.9	68.4	0.0	0.8
1993	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.1	11.0	1.1	44.0	68.7	0.0	0.8
1994	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	10.7	10.6	1.4	45.1	68.4	0.0	0.8
1995	0.0	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.5	10.2	10.0	1.4	46.6	68.7	0.0	0.7
1996	0.0	0.5	0.6	0.2	0.1	0.2	0.5	1.0	0.5	10.4	10.1	1.5	45.8	68.3	0.0	0.9
1997	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	9.5	9.2	1.4	48.1	68.6	0.0	0.9

Table 13. Cholesterol contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	27.2	3.1	1.8	32.1	9.3	0.6	1.2	4.5	15.6	38.4	0.0	0.1
1920-29	24.8	3.0	1.8	29.6	9.7	0.5	1.3	5.9	17.3	39.2	0.0	0.1
1930-39	23.9	3.1	1.7	28.7	10.2	0.5	1.5	6.7	18.8	38.2	0.0	0.1
1940-49	25.6	3.9	1.5	30.9	11.1	0.5	1.6	5.8	19.1	39.9	0.0	0.0
1950-59	25.2	4.5	1.6	31.3	10.4	0.4	2.0	4.5	17.3	43.5	0.0	0.0
1960-69	28.1	6.6	1.7	36.4	9.5	0.5	2.6	3.8	16.3	40.5	0.0	0.0
1970	29.7	7.8	2.0	39.4	8.2	0.8	2.9	3.3	15.3	39.5	0.0	0.0
1971	30.2	7.7	1.9	39.8	8.0	0.9	3.1	3.2	15.1	39.4	0.0	0.0
1972	29.8	8.1	2.0	39.9	7.9	1.0	3.4	3.1	15.3	39.3	0.0	0.0
1973	28.9	8.2	2.1	39.3	7.9	1.1	3.6	3.3	15.9	39.6	0.0	0.0
1974	30.7	8.1	2.1	40.9	7.3	1.1	3.8	3.2	15.5	38.4	0.0	0.0
1975	30.2	8.2	2.2	40.5	7.3	1.1	3.9	3.3	15.6	38.8	0.0	0.0
1976	31.3	8.7	2.3	42.3	6.9	1.3	4.2	3.2	15.6	37.4	0.0	0.0
1977	31.3	8.8	2.3	42.4	6.6	1.4	4.3	3.2	15.5	37.2	0.0	0.0
1978	30.1	9.1	2.3	41.5	6.3	1.5	4.5	3.2	15.5	37.9	0.0	0.0
1979	29.2	9.6	2.2	41.0	6.1	1.5	4.6	3.2	15.3	38.5	0.0	0.0
1980	29.6	9.7	2.3	41.6	5.7	1.6	4.7	3.2	15.2	37.8	0.0	0.0
1981	29.7	10.0	2.3	42.0	5.6	1.6	4.9	3.3	15.4	37.3	0.0	0.0
1982	28.6	10.1	2.3	41.0	5.3	1.7	5.5	3.3	15.8	37.9	0.0	0.0
1983	29.2	10.0	2.4	41.7	5.2	1.7	5.5	3.4	15.9	36.8	0.0	0.0
1984	29.0	10.1	2.5	41.6	5.0	1.8	5.7	3.5	16.0	36.6	0.0	0.0
1985	28.9	10.3	2.8	42.0	4.8	1.9	5.9	3.6	16.3	35.8	0.0	0.0
1986	28.6	10.8	2.8	42.1	4.6	2.0	6.1	3.8	16.4	35.8	0.0	0.0
1987	27.7	11.6	2.9	42.3	4.4	2.0	6.3	3.8	16.6	35.9	0.0	0.0
1988	28.2	11.9	2.9	43.0	4.2	2.1	6.2	3.8	16.4	35.5	0.0	0.0
1989	28.3	12.5	3.0	43.9	4.0	2.3	6.3	3.9	16.4	34.8	0.0	0.0
1990	27.7	13.2	3.0	43.9	3.7	2.3	6.5	3.9	16.4	34.8	0.0	0.0
1991	26.6	13.8	3.1	43.5	3.6	2.4	6.7	3.9	16.6	35.0	0.0	0.0
1992	26.6	14.1	3.0	43.7	3.4	2.3	6.8	3.9	16.4	34.7	0.0	0.0
1993	26.0	14.4	3.1	43.5	3.3	2.3	6.9	3.9	16.3	34.8	0.0	0.0
1994	26.2	14.4	3.1	43.7	3.2	2.3	6.9	4.0	16.3	34.5	0.0	0.0
1995	26.7	14.4	3.1	44.1	3.0	2.2	7.0	3.9	16.1	34.3	0.0	0.0
1996	26.2	14.7	3.0	43.9	3.0	2.1	7.1	4.0	16.2	34.6	0.0	0.0
1997	25.9	15.0	3.1	44.0	2.9	2.1	7.2	4.1	16.3	34.8	0.0	0.0

Table 13. Cholesterol contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.2	0.2	3.0	0.0	13.8	0.0	0.0
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	0.2	0.2	3.2	0.0	13.8	0.0	0.0
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.1	0.2	3.2	0.0	14.2	0.0	0.0
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.2	3.0	0.0	10.1	0.0	0.0
1950-59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.6	2.5	0.0	7.9	0.0	0.0
1960-69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.1	1.3	1.6	0.0	6.8	0.0	0.0
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.1	1.3	1.2	0.0	5.7	0.0	0.0
1971	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.2	1.4	1.1	0.0	5.7	0.0	0.0
1972	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.2	1.4	1.0	0.0	5.4	0.0	0.0
1973	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.2	0.9	0.0	5.2	0.0	0.0
1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.2	1.3	0.9	0.0	5.2	0.0	0.0
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.1	0.9	0.0	5.1	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.1	0.8	0.0	4.7	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.3	0.7	0.0	4.8	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	1.4	0.7	0.0	4.9	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	1.4	0.8	0.0	5.1	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	1.4	1.1	0.0	5.4	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.4	1.0	0.0	5.2	0.0	0.0
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1.2	1.1	0.0	5.3	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	1.2	1.2	0.0	5.6	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	1.4	1.1	0.0	5.7	0.0	0.0
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.1	1.7	1.1	0.0	6.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.6	1.1	0.0	5.7	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.4	0.8	0.0	5.2	0.0	0.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.4	0.8	0.0	5.2	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.4	0.6	0.0	4.9	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.2	0.7	0.0	4.9	0.0	0.0
1991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.9	1.0	0.0	4.9	0.0	0.0
1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.9	1.3	0.0	5.2	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.9	1.2	0.0	5.3	0.0	0.0
1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.8	1.5	0.0	5.5	0.0	0.0
1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.9	1.5	0.0	5.5	0.0	0.0
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.8	1.6	0.0	5.3	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.7	1.5	0.0	4.9	0.0	0.0

Table 14. Vitamin A (RE) contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	28.5	4.4	0.6	33.5	7.8	0.2	1.2	4.5	13.7	6.4	0.0	1.7
1920-29	25.6	4.1	0.4	30.1	8.2	0.2	1.3	5.9	15.6	6.5	0.0	1.2
1930-39	22.9	4.1	0.3	27.2	8.3	0.2	1.4	6.3	16.2	6.1	0.0	0.9
1940-49	26.0	5.1	0.3	31.4	9.1	0.2	1.5	5.9	16.8	6.4	0.0	0.6
1950-59	26.1	5.3	0.3	31.7	9.1	0.3	2.1	5.4	16.9	7.5	0.0	0.4
1960-69	25.8	5.4	0.3	31.6	7.7	1.0	2.5	7.1	18.3	6.5	0.0	0.3
1970	25.1	4.5	0.3	29.9	6.0	1.4	2.5	8.5	18.4	5.6	0.0	0.3
1971	25.2	4.4	0.3	29.9	5.8	1.4	2.7	8.4	18.3	5.6	0.0	0.3
1972	23.8	4.5	0.3	28.6	5.5	1.5	2.8	8.3	18.1	5.4	0.0	0.3
1973	21.8	4.2	0.3	26.3	5.3	1.5	2.9	8.3	18.0	5.2	0.0	0.3
1974	21.9	3.8	0.3	26.0	4.6	1.4	2.9	7.5	16.4	4.7	0.0	5.5
1975	21.0	3.7	0.3	24.9	4.4	1.0	2.9	7.7	16.0	4.6	0.0	5.5
1976	21.5	3.8	0.3	25.6	4.2	1.2	3.1	7.5	16.0	4.5	0.0	5.6
1977	21.8	3.9	0.3	26.0	4.1	1.3	3.3	7.8	16.4	4.6	0.0	5.9
1978	20.9	4.0	0.3	25.2	4.0	1.1	3.5	7.8	16.5	4.7	0.0	6.1
1979	20.0	4.0	0.3	24.3	3.8	1.1	3.5	7.6	16.0	4.7	0.0	6.5
1980	20.0	3.9	0.3	24.2	3.6	1.2	3.6	7.7	16.1	4.7	0.0	6.6
1981	19.8	3.9	0.3	24.0	3.4	1.2	3.7	7.8	16.2	4.5	0.0	6.7
1982	18.1	3.7	0.3	22.1	3.3	1.2	4.1	7.8	16.4	4.6	0.0	6.8
1983	19.3	3.5	0.3	23.1	3.2	1.3	4.2	8.0	16.7	4.5	0.0	7.0
1984	18.9	3.2	0.3	22.3	3.1	1.3	4.3	7.9	16.6	4.4	0.0	7.0
1985	18.4	2.9	0.3	21.6	3.0	1.4	4.5	8.1	17.0	4.4	0.0	7.2
1986	18.3	3.1	0.3	21.7	2.8	1.5	4.7	8.3	17.3	4.4	0.0	7.4
1987	17.8	3.4	0.3	21.6	2.7	1.5	4.8	8.2	17.1	4.3	0.0	7.3
1988	17.4	3.4	0.3	21.1	2.6	1.5	4.8	8.5	17.5	4.3	0.0	8.0
1989	17.7	3.2	0.3	21.2	2.3	1.6	4.7	8.2	16.8	4.0	0.0	8.1
1990	17.0	3.2	0.3	20.5	2.1	1.5	4.7	8.1	16.5	3.9	0.0	8.5
1991	16.7	3.4	0.3	20.4	2.1	1.6	4.9	8.2	16.8	4.0	0.0	9.2
1992	16.5	3.2	0.3	20.0	1.9	1.5	4.9	8.0	16.4	3.9	0.0	9.2
1993	16.3	3.1	0.3	19.8	1.9	1.5	5.0	8.1	16.6	3.9	0.0	9.2
1994	16.7	3.1	0.3	20.1	1.8	1.5	5.0	8.0	16.3	3.9	0.0	9.1
1995	17.2	3.1	0.3	20.6	1.7	1.4	5.1	7.9	16.2	3.8	0.0	9.0
1996	16.5	3.1	0.3	19.8	1.7	1.4	5.0	7.7	15.7	3.8	0.0	8.6
1997	15.7	3.0	0.3	19.1	1.6	1.3	4.9	7.5	15.3	3.7	0.0	8.4

Table 14. Vitamin A (RE) contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.2	4.3	4.5	0.0	21.0	2.8	3.3	27.0	13.1	0.0	0.0	0.0	0.0	13.1	0.0	0.6
1920-29	0.4	4.2	4.6	0.0	22.1	2.4	3.9	28.5	12.9	0.0	0.0	0.0	0.0	12.9	0.0	1.2
1930-39	0.6	4.2	4.7	0.0	23.7	2.7	4.5	30.9	12.9	0.2	0.0	0.0	0.0	13.2	0.0	1.4
1940-49	0.8	3.7	4.4	0.0	21.6	2.9	4.2	28.8	8.4	2.7	0.0	0.0	0.0	11.1	0.0	1.1
1950-59	0.7	3.5	4.1	0.0	17.4	2.9	4.0	24.3	6.3	8.0	0.0	0.0	0.0	14.3	0.0	1.3
1960-69	0.6	3.0	3.5	0.0	17.0	2.5	3.8	23.3	4.6	10.1	0.0	0.0	0.0	14.7	0.0	2.5
1970	0.5	2.6	3.2	0.0	20.6	2.7	3.9	27.2	3.4	7.0	0.0	0.0	0.0	10.5	0.0	6.0
1971	0.6	2.5	3.1	0.0	21.2	2.8	3.9	27.9	3.3	6.8	0.0	0.0	0.0	10.1	0.0	5.7
1972	0.6	2.3	2.9	0.0	23.3	2.7	3.7	29.7	3.1	7.0	0.0	0.0	0.0	10.1	0.0	6.0
1973	0.6	2.3	2.9	0.0	25.6	2.6	3.8	32.0	3.0	7.2	0.0	0.0	0.0	10.3	0.0	6.2
1974	0.5	2.0	2.5	0.0	25.1	2.4	3.4	30.9	2.6	6.4	0.0	0.0	0.0	9.1	0.0	6.3
1975	0.6	2.1	2.7	0.0	26.1	2.5	3.5	32.1	2.8	6.7	0.0	0.0	0.0	9.5	0.0	5.8
1976	0.6	2.1	2.6	0.0	25.3	2.6	3.5	31.4	2.5	7.2	0.0	0.0	0.0	9.7	0.0	5.8
1977	0.6	2.2	2.8	0.0	23.8	2.5	3.7	30.0	2.6	7.0	0.0	0.0	0.0	9.6	0.0	6.0
1978	0.5	2.3	2.8	0.0	24.1	2.5	3.6	30.3	2.6	7.0	0.0	0.0	0.0	9.7	0.0	5.9
1979	0.5	2.2	2.7	0.0	25.5	2.6	3.6	31.6	2.7	6.8	0.0	0.0	0.0	9.5	0.0	6.0
1980	0.6	2.2	2.8	0.0	24.9	2.6	3.7	31.2	2.7	6.9	0.0	0.0	0.0	9.6	0.0	6.2
1981	0.5	2.2	2.7	0.0	25.3	2.5	3.5	31.3	2.5	6.9	0.0	0.0	0.0	9.4	0.0	6.6
1982	0.5	2.4	2.9	0.0	26.8	2.5	3.4	32.7	2.6	7.0	0.0	0.0	0.0	9.6	0.0	6.3
1983	0.6	2.2	2.8	0.0	25.4	2.6	3.3	31.3	3.0	6.5	0.0	0.0	0.0	9.5	0.0	6.5
1984	0.5	2.5	3.0	0.0	26.3	2.7	3.2	32.3	2.9	6.4	0.0	0.0	0.0	9.4	0.0	6.7
1985	0.5	2.5	3.0	0.0	25.9	2.6	3.5	31.9	2.9	6.7	0.0	0.0	0.0	9.6	0.0	7.0
1986	0.5	2.6	3.2	0.0	24.8	2.6	3.4	30.9	2.8	7.2	0.0	0.0	0.0	9.9	0.0	6.9
1987	0.5	2.7	3.2	0.0	26.3	2.5	3.2	32.0	2.8	6.6	0.0	0.0	0.0	9.3	0.0	6.8
1988	0.5	2.6	3.1	0.0	25.0	2.6	3.5	31.1	2.8	6.6	0.0	0.0	0.0	9.4	0.0	7.2
1989	0.5	2.8	3.3	0.0	25.9	2.7	3.5	32.1	2.6	6.3	0.0	0.0	0.0	8.9	0.0	7.6
1990	0.4	2.6	3.0	0.0	26.6	2.8	3.4	32.7	2.6	6.6	0.0	0.0	0.0	9.2	0.0	8.0
1991	0.4	2.5	3.0	0.0	25.4	2.9	3.4	31.7	2.6	6.6	0.0	0.0	0.0	9.2	0.0	8.0
1992	0.5	2.5	2.9	0.0	26.4	2.7	3.4	32.5	2.5	6.6	0.0	0.0	0.0	9.1	0.0	8.6
1993	0.5	2.5	3.0	0.0	25.8	2.8	3.4	32.0	2.7	6.8	0.0	0.0	0.0	9.5	0.0	8.4
1994	0.5	2.5	3.0	0.0	27.5	2.7	3.5	33.7	2.7	5.9	0.0	0.0	0.0	8.6	0.0	7.4
1995	0.5	2.5	3.0	0.0	27.9	2.7	3.4	34.1	2.6	5.4	0.0	0.0	0.0	8.0	0.0	7.2
1996	0.5	2.6	3.1	0.0	29.6	2.6	3.3	35.5	2.4	5.3	0.0	0.0	0.0	7.7	0.0	8.1
1997	0.5	2.7	3.3	0.0	32.1	2.6	3.2	37.9	2.2	4.8	0.0	0.0	0.0	7.0	0.0	7.6

Table 15. Carotene contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	0.0	0.0	0.0	0.0	2.1	0.0	0.2	1.3	3.7	0.0	0.0	4.6
1920-29	0.0	0.0	0.0	0.0	2.1	0.0	0.2	1.6	3.9	0.0	0.0	3.0
1930-39	0.0	0.0	0.0	0.0	2.0	0.0	0.2	1.6	3.8	0.0	0.0	2.2
1940-49	0.0	0.0	0.0	0.0	2.4	0.0	0.3	1.5	4.2	0.0	0.0	1.6
1950-59	0.0	0.0	0.0	0.0	2.8	0.0	0.4	1.4	4.6	0.0	0.1	1.2
1960-69	0.0	0.0	0.0	0.0	2.5	0.1	0.6	1.2	4.4	0.0	0.1	0.9
1970	0.0	0.0	0.0	0.0	1.7	0.2	0.5	0.9	3.3	0.0	0.1	0.6
1971	0.0	0.0	0.0	0.0	1.7	0.2	0.5	0.8	3.3	0.0	0.1	0.6
1972	0.0	0.0	0.0	0.0	1.5	0.2	0.5	0.8	3.0	0.0	0.1	0.5
1973	0.0	0.0	0.0	0.0	1.4	0.2	0.5	0.7	2.8	0.0	0.1	0.5
1974	0.0	0.0	0.0	0.0	1.2	0.2	0.5	0.7	2.6	0.0	0.1	0.4
1975	0.0	0.0	0.0	0.0	1.1	0.2	0.5	0.7	2.6	0.0	0.1	0.4
1976	0.0	0.0	0.0	0.0	1.1	0.2	0.6	0.7	2.6	0.0	0.1	0.4
1977	0.0	0.0	0.0	0.0	1.1	0.3	0.6	0.7	2.7	0.0	0.1	0.5
1978	0.0	0.0	0.0	0.0	1.1	0.3	0.6	0.7	2.8	0.0	0.1	0.5
1979	0.0	0.0	0.0	0.0	1.0	0.3	0.6	0.7	2.6	0.0	0.1	0.5
1980	0.0	0.0	0.0	0.0	0.9	0.3	0.6	0.7	2.6	0.0	0.1	0.6
1981	0.0	0.0	0.0	0.0	0.9	0.3	0.7	0.7	2.6	0.0	0.1	0.6
1982	0.0	0.0	0.0	0.0	0.8	0.3	0.7	0.7	2.5	0.0	0.1	0.6
1983	0.0	0.0	0.0	0.0	0.8	0.3	0.8	0.7	2.7	0.0	0.1	0.6
1984	0.0	0.0	0.0	0.0	0.8	0.3	0.7	0.7	2.6	0.0	0.1	0.7
1985	0.0	0.0	0.0	0.0	0.8	0.3	0.8	0.8	2.6	0.0	0.1	0.8
1986	0.0	0.0	0.0	0.0	0.7	0.4	0.8	0.8	2.7	0.0	0.1	0.9
1987	0.0	0.0	0.0	0.0	0.7	0.4	0.8	0.8	2.6	0.0	0.1	1.0
1988	0.0	0.0	0.0	0.0	0.7	0.4	0.8	0.8	2.7	0.0	0.1	1.1
1989	0.0	0.0	0.0	0.0	0.6	0.4	0.8	0.7	2.5	0.0	0.1	1.0
1990	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.4	0.0	0.1	1.0
1991	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.5	0.0	0.1	1.1
1992	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.3	0.0	0.1	1.1
1993	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.4	0.0	0.1	1.1
1994	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.7	2.3	0.0	0.1	1.1
1995	0.0	0.0	0.0	0.0	0.4	0.3	0.8	0.7	2.2	0.0	0.1	1.1
1996	0.0	0.0	0.0	0.0	0.4	0.3	0.8	0.6	2.1	0.0	0.1	1.0
1997	0.0	0.0	0.0	0.0	0.3	0.3	0.7	0.6	1.9	0.0	0.1	0.9

Table 15. Carotene contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
	Percent															
1909-19	0.7	12.0	12.7	0.0	58.9	6.7	9.2	74.7	4.1	0.0	0.0	0.0	0.0	4.1	0.0	1.4
1920-29	1.0	11.4	12.4	0.0	59.2	5.4	10.6	75.2	3.8	0.0	0.0	0.0	0.0	3.8	0.0	1.6
1930-39	1.4	10.5	11.9	0.0	60.0	5.4	11.3	76.6	3.6	0.0	0.0	0.0	0.0	3.6	0.0	1.8
1940-49	2.1	10.3	12.4	0.0	60.0	6.0	11.8	77.7	2.6	0.0	0.0	0.0	0.0	2.6	0.0	1.5
1950-59	2.2	11.2	13.4	0.0	55.7	6.2	12.9	74.8	2.3	1.7	0.0	0.0	0.0	3.9	0.0	2.1
1960-69	1.9	10.1	12.1	0.0	57.4	5.2	12.7	75.3	1.7	2.8	0.0	0.0	0.0	4.6	0.0	2.8
1970	1.6	8.0	9.6	0.0	62.4	4.2	11.7	78.3	1.2	3.7	0.0	0.0	0.0	4.8	0.0	3.3
1971	1.7	7.6	9.2	0.0	63.6	4.2	11.6	79.4	1.1	3.5	0.0	0.0	0.0	4.6	0.0	2.8
1972	1.6	6.6	8.2	0.0	66.1	3.9	10.5	80.5	1.0	3.4	0.0	0.0	0.0	4.4	0.0	3.3
1973	1.5	6.2	7.6	0.0	68.0	3.6	10.0	81.6	0.9	3.3	0.0	0.0	0.0	4.2	0.0	3.2
1974	1.4	5.5	6.9	0.0	69.1	3.6	9.3	82.1	0.8	3.1	0.0	0.0	0.0	3.9	0.0	4.0
1975	1.5	5.6	7.1	0.0	69.8	3.7	9.3	82.8	0.8	3.1	0.0	0.0	0.0	3.9	0.0	3.1
1976	1.5	5.7	7.2	0.0	69.0	3.9	9.5	82.3	0.8	3.4	0.0	0.0	0.0	4.1	0.0	3.2
1977	1.6	6.3	7.8	0.0	66.8	4.0	10.2	81.1	0.8	3.4	0.0	0.0	0.0	4.2	0.0	3.5
1978	1.5	6.5	8.0	0.0	67.2	3.9	10.1	81.2	0.8	3.4	0.0	0.0	0.0	4.2	0.0	3.2
1979	1.4	6.0	7.3	0.0	68.7	3.9	9.6	82.2	0.8	3.2	0.0	0.0	0.0	4.0	0.0	3.4
1980	1.5	6.0	7.6	0.0	67.8	3.7	10.1	81.5	0.8	3.2	0.0	0.0	0.0	4.0	0.0	3.6
1981	1.4	6.0	7.4	0.0	68.1	3.7	9.5	81.3	0.8	3.2	0.0	0.0	0.0	3.9	0.0	4.1
1982	1.3	6.3	7.6	0.0	69.4	3.7	8.8	81.9	0.7	3.1	0.0	0.0	0.0	3.8	0.0	3.5
1983	1.6	6.1	7.7	0.0	68.4	3.9	8.9	81.2	0.9	3.0	0.0	0.0	0.0	3.9	0.0	3.9
1984	1.3	6.5	7.8	0.0	68.6	4.0	8.5	81.0	0.8	2.9	0.0	0.0	0.0	3.7	0.0	4.1
1985	1.3	6.6	7.8	0.0	67.3	3.9	9.2	80.4	0.8	3.0	0.0	0.0	0.0	3.8	0.0	4.5
1986	1.4	7.1	8.5	0.0	65.9	4.2	9.1	79.3	0.8	3.3	0.0	0.0	0.0	4.1	0.0	4.5
1987	1.3	7.0	8.3	0.0	67.8	3.9	8.4	80.1	0.8	2.9	0.0	0.0	0.0	3.7	0.0	4.2
1988	1.5	6.9	8.3	0.0	65.9	4.2	9.3	79.3	0.8	3.0	0.0	0.0	0.0	3.8	0.0	4.7
1989	1.2	7.2	8.4	0.0	66.3	4.1	8.9	79.3	0.7	2.8	0.0	0.0	0.0	3.5	0.0	5.2
1990	1.0	6.5	7.5	0.0	67.0	4.1	8.6	79.7	0.7	2.9	0.0	0.0	0.0	3.6	0.0	5.7
1991	1.1	6.6	7.7	0.0	66.0	4.2	8.9	79.2	0.7	2.9	0.0	0.0	0.0	3.7	0.0	5.7
1992	1.2	6.3	7.4	0.0	66.6	3.9	8.5	79.1	0.7	2.9	0.0	0.0	0.0	3.6	0.0	6.5
1993	1.4	6.4	7.8	0.0	65.8	4.0	8.8	78.6	0.8	3.0	0.0	0.0	0.0	3.8	0.0	6.3
1994	1.3	6.3	7.5	0.0	68.3	3.9	8.6	80.9	0.7	2.5	0.0	0.0	0.0	3.3	0.0	4.9
1995	1.3	6.1	7.4	0.0	69.0	3.9	8.5	81.5	0.7	2.3	0.0	0.0	0.0	3.0	0.0	4.7
1996	1.2	6.2	7.4	0.0	69.6	3.6	7.8	81.0	0.6	2.2	0.0	0.0	0.0	2.8	0.0	5.7
1997	1.2	6.2	7.3	0.0	71.8	3.3	7.3	82.4	0.6	1.9	0.0	0.0	0.0	2.4	0.0	4.9

Table 16. Vitamin E contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
	Percent											
1909-19	5.1	0.8	1.6	7.5	3.9	0.7	0.3	1.8	6.8	5.5	6.4	17.7
1920-29	4.6	0.7	1.5	6.9	4.0	0.6	0.3	2.3	7.2	5.3	6.9	13.8
1930-39	3.9	0.7	1.3	5.9	3.7	0.6	0.3	2.3	6.9	4.6	6.8	11.2
1940-49	4.2	0.8	1.2	6.2	4.1	0.6	0.4	2.1	7.1	4.9	7.7	9.0
1950-59	3.9	0.8	1.3	6.0	3.6	0.4	0.5	1.5	6.0	5.0	6.5	6.9
1960-69	3.6	1.0	1.1	5.6	2.7	0.2	0.5	1.1	4.6	3.9	6.5	5.6
1970	3.2	1.0	1.0	5.3	2.1	0.3	0.5	0.9	3.8	3.3	6.0	4.8
1971	3.4	1.1	1.0	5.5	2.1	0.4	0.5	0.9	3.8	3.4	6.1	4.8
1972	3.1	1.1	1.0	5.2	1.9	0.4	0.6	0.8	3.7	3.2	6.2	4.6
1973	2.7	1.0	1.0	4.8	1.8	0.4	0.5	0.8	3.5	3.0	6.0	4.6
1974	3.0	1.0	1.0	5.0	1.7	0.4	0.6	0.8	3.5	3.0	5.8	3.7
1975	2.8	1.0	1.0	4.8	1.6	0.3	0.6	0.8	3.4	2.9	6.3	3.7
1976	2.8	1.0	1.0	4.9	1.5	0.4	0.6	0.8	3.3	2.7	5.9	3.7
1977	2.9	1.1	1.0	5.1	1.5	0.4	0.7	0.8	3.4	2.8	6.1	4.0
1978	2.8	1.1	1.1	4.9	1.4	0.4	0.7	0.8	3.3	2.8	6.0	3.9
1979	2.8	1.1	1.0	5.0	1.3	0.5	0.7	0.8	3.3	2.8	5.9	3.9
1980	2.9	1.2	1.0	5.0	1.3	0.5	0.7	0.8	3.2	2.8	5.2	3.9
1981	2.8	1.2	1.0	4.9	1.2	0.5	0.7	0.8	3.2	2.7	5.9	3.9
1982	2.6	1.1	0.9	4.6	1.1	0.5	0.8	0.8	3.1	2.6	6.4	3.8
1983	2.6	1.1	0.9	4.7	1.1	0.5	0.8	0.8	3.1	2.5	6.2	3.8
1984	2.5	1.1	1.0	4.6	1.0	0.5	0.8	0.8	3.1	2.5	6.3	3.8
1985	2.4	1.1	1.0	4.5	0.9	0.5	0.8	0.8	3.0	2.4	6.6	3.9
1986	2.4	1.2	1.0	4.6	0.9	0.5	0.8	0.8	3.1	2.4	6.2	4.1
1987	2.3	1.3	1.0	4.6	0.9	0.5	0.9	0.8	3.1	2.4	6.2	4.3
1988	2.3	1.2	1.0	4.5	0.8	0.5	0.8	0.8	2.9	2.2	6.4	4.4
1989	2.3	1.3	1.1	4.7	0.7	0.6	0.8	0.8	2.9	2.2	6.5	4.6
1990	2.2	1.3	1.0	4.6	0.7	0.6	0.9	0.8	2.9	2.1	6.2	4.8
1991	2.0	1.3	1.0	4.3	0.6	0.6	0.9	0.7	2.8	2.1	6.0	4.8
1992	2.0	1.4	1.0	4.4	0.6	0.6	0.9	0.8	2.8	2.1	5.8	5.1
1993	1.9	1.4	1.0	4.2	0.6	0.5	0.9	0.7	2.7	2.0	5.6	5.1
1994	2.0	1.4	1.0	4.4	0.6	0.6	0.9	0.8	2.8	2.0	5.5	5.2
1995	2.0	1.5	1.0	4.5	0.5	0.6	0.9	0.7	2.8	2.1	5.3	5.3
1996	2.0	1.5	1.0	4.5	0.5	0.5	1.0	0.8	2.8	2.1	5.3	5.3
1997	1.9	1.5	1.0	4.4	0.5	0.5	1.0	0.8	2.8	2.1	5.5	5.2

Table 16. Vitamin E contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.5	7.0	7.5	1.3	1.9	3.3	3.9	10.5	4.3	2.5	19.7	2.2	9.4	38.1	0.0	0.3
1920-29	0.7	6.6	7.2	1.1	2.7	2.9	4.4	11.0	4.0	3.3	15.5	2.3	16.3	41.3	0.0	0.4
1930-39	0.9	5.7	6.6	0.8	2.9	3.1	4.3	11.2	3.8	3.9	17.6	2.0	19.1	46.4	0.0	0.4
1940-49	1.2	5.0	6.2	0.7	2.7	4.0	4.0	11.4	2.4	6.1	14.5	1.8	22.4	47.3	0.0	0.3
1950-59	1.0	4.2	5.2	0.6	1.8	4.0	3.3	9.7	1.6	11.7	13.8	1.5	25.8	54.4	0.0	0.3
1960-69	0.9	3.4	4.3	0.6	1.3	3.6	2.8	8.2	1.1	12.5	14.7	0.8	31.9	60.9	0.0	0.4
1970	0.9	3.1	4.0	0.5	1.1	3.9	2.5	8.0	0.8	12.0	16.7	0.5	34.3	64.4	0.0	0.4
1971	1.0	3.1	4.1	0.5	1.1	4.3	2.5	8.4	0.8	12.0	15.7	0.5	34.3	63.4	0.0	0.4
1972	1.0	2.7	3.7	0.5	1.1	4.0	2.4	8.0	0.7	12.0	16.6	0.4	35.1	64.9	0.0	0.5
1973	0.9	2.7	3.7	0.5	1.1	3.5	2.4	7.5	0.7	11.8	16.2	0.3	37.6	66.6	0.0	0.4
1974	1.0	2.8	3.8	0.5	1.1	3.9	2.4	7.9	0.6	11.8	16.3	0.3	37.6	66.7	0.0	0.5
1975	1.1	3.0	4.0	0.5	1.1	3.9	2.4	7.9	0.7	12.1	17.0	0.3	36.6	66.7	0.0	0.4
1976	1.1	2.8	3.9	0.5	1.1	4.0	2.4	7.9	0.6	12.8	16.0	0.3	37.5	67.2	0.0	0.5
1977	1.1	3.0	4.1	0.5	1.1	4.0	2.4	7.9	0.6	12.4	15.5	0.3	37.6	66.3	0.0	0.4
1978	0.9	2.9	3.8	0.5	1.0	3.6	2.3	7.5	0.6	12.0	15.6	0.2	39.0	67.4	0.0	0.4
1979	0.9	2.9	3.8	0.5	1.1	3.9	2.3	7.8	0.6	11.8	16.2	0.4	38.2	67.1	0.0	0.4
1980	1.0	3.0	4.0	0.5	1.1	3.7	2.3	7.6	0.6	11.9	15.9	0.5	39.0	67.9	0.0	0.4
1981	0.9	2.9	3.8	0.4	1.1	3.5	2.2	7.3	0.6	11.7	16.3	0.5	38.8	67.8	0.0	0.5
1982	0.9	2.9	3.9	0.4	1.2	3.5	2.1	7.2	0.6	11.5	16.6	0.6	38.5	67.8	0.0	0.4
1983	1.1	2.8	3.8	0.4	1.1	3.5	2.0	7.1	0.6	10.6	16.0	0.7	40.4	68.3	0.0	0.5
1984	0.9	2.9	3.8	0.4	1.1	3.8	2.0	7.4	0.6	10.3	18.2	0.6	38.3	68.1	0.0	0.5
1985	0.9	2.8	3.7	0.4	1.1	3.5	2.0	7.0	0.6	10.3	18.6	0.6	38.4	68.5	0.0	0.5
1986	1.0	2.9	3.9	0.4	1.1	3.6	1.9	7.1	0.6	11.1	18.4	0.5	37.6	68.2	0.0	0.5
1987	0.9	3.1	3.9	0.4	1.1	3.7	1.8	7.0	0.6	10.3	18.1	0.4	38.7	68.0	0.0	0.5
1988	0.9	2.9	3.8	0.4	1.1	3.4	1.8	6.7	0.5	9.6	17.8	0.3	40.3	68.6	0.0	0.5
1989	0.8	3.0	3.8	0.4	1.1	3.8	1.9	7.3	0.5	9.7	18.4	0.2	38.7	67.5	0.0	0.6
1990	0.7	2.8	3.5	0.4	1.1	4.1	1.9	7.5	0.5	10.3	19.7	0.3	37.1	67.9	0.0	0.6
1991	0.8	2.6	3.4	0.4	1.1	4.0	1.8	7.2	0.5	9.7	20.2	0.4	38.1	68.8	0.0	0.6
1992	0.8	2.8	3.6	0.4	1.1	3.8	1.8	7.2	0.5	10.0	20.1	0.6	37.2	68.5	0.0	0.6
1993	0.9	2.7	3.6	0.4	1.1	3.8	1.7	7.0	0.5	9.9	22.4	0.6	35.8	69.2	0.0	0.6
1994	0.9	2.7	3.6	0.4	1.2	3.9	1.8	7.3	0.6	8.9	21.7	0.7	36.9	68.7	0.0	0.6
1995	1.0	2.5	3.5	0.4	1.3	3.9	1.8	7.4	0.5	8.4	20.7	0.7	38.3	68.6	0.0	0.5
1996	1.0	2.7	3.7	0.4	1.4	3.9	1.8	7.5	0.5	8.5	20.9	0.8	37.4	68.1	0.0	0.6
1997	1.0	2.8	3.8	0.4	1.4	3.8	1.8	7.5	0.5	7.8	19.3	0.7	39.8	68.1	0.0	0.6

Table 17. Vitamin C contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	1.5	0.4	0.1	2.1	2.6	0.7	0.0	0.4	3.8	0.0	0.0	0.0
1920-29	1.4	0.4	0.1	1.9	3.1	0.6	0.0	0.6	4.3	0.0	0.0	0.1
1930-39	1.2	0.4	0.1	1.7	3.2	0.5	0.0	0.8	4.5	0.0	0.0	0.0
1940-49	1.4	0.5	0.1	1.9	3.5	0.4	0.0	1.0	4.9	0.0	0.0	0.0
1950-59	1.5	0.7	0.1	2.3	3.7	0.4	0.0	1.2	5.2	0.0	0.0	0.0
1960-69	1.5	0.9	0.1	2.5	3.3	0.6	0.0	1.1	5.0	0.0	0.0	0.0
1970	1.4	0.8	0.1	2.4	2.5	0.8	0.0	0.9	4.2	0.0	0.0	0.0
1971	1.4	0.8	0.1	2.4	2.4	0.8	0.0	0.9	4.1	0.0	0.0	0.0
1972	1.4	0.8	0.1	2.3	2.3	0.8	0.0	0.8	4.0	0.0	0.1	0.0
1973	1.3	0.8	0.1	2.2	2.3	0.9	0.0	0.9	4.0	0.0	0.0	0.0
1974	1.3	0.7	0.1	2.2	2.0	0.8	0.0	0.7	3.6	0.0	0.0	4.5
1975	1.2	0.7	0.1	2.0	1.9	0.7	0.0	0.7	3.3	0.0	0.0	4.4
1976	1.2	0.7	0.1	2.1	1.8	0.9	0.0	0.7	3.4	0.0	0.0	4.5
1977	1.2	0.7	0.1	2.1	1.7	1.0	0.0	0.6	3.3	0.0	0.0	4.6
1978	1.2	0.8	0.1	2.1	1.7	1.0	0.0	0.7	3.4	0.0	0.0	4.8
1979	1.2	0.8	0.1	2.1	1.6	1.0	0.0	0.7	3.3	0.0	0.0	5.2
1980	1.2	0.8	0.1	2.1	1.5	1.0	0.0	0.6	3.1	0.0	0.0	5.1
1981	1.2	0.8	0.1	2.1	1.5	1.0	0.0	0.6	3.1	0.0	0.0	5.3
1982	1.1	0.8	0.1	2.0	1.4	1.0	0.0	0.6	3.0	0.0	0.0	5.3
1983	1.1	0.7	0.1	1.9	1.3	1.0	0.0	0.6	2.9	0.0	0.0	5.2
1984	1.1	0.8	0.1	2.0	1.3	1.1	0.0	0.6	3.0	0.0	0.0	5.4
1985	1.1	0.7	0.2	2.0	1.2	1.1	0.0	0.6	3.0	0.0	0.0	5.5
1986	1.0	0.7	0.1	1.9	1.1	1.1	0.0	0.6	2.9	0.0	0.0	5.4
1987	1.0	0.8	0.2	2.0	1.1	1.2	0.0	0.6	3.0	0.0	0.0	5.6
1988	1.0	0.8	0.2	2.0	1.1	1.2	0.0	0.6	2.9	0.0	0.0	5.8
1989	1.0	0.8	0.2	2.0	1.0	1.3	0.0	0.6	2.9	0.0	0.0	6.0
1990	1.0	0.9	0.2	2.1	0.9	1.4	0.0	0.7	3.0	0.0	0.0	6.6
1991	0.9	0.9	0.2	2.0	0.9	1.4	0.0	0.6	2.9	0.0	0.0	6.9
1992	0.9	0.9	0.2	2.0	0.8	1.4	0.0	0.6	2.8	0.0	0.0	7.0
1993	0.9	0.9	0.2	1.9	0.8	1.3	0.0	0.6	2.7	0.0	0.0	5.5
1994	0.9	0.9	0.1	1.9	0.7	1.3	0.0	0.7	2.7	0.0	0.0	5.5
1995	0.9	0.9	0.2	1.9	0.7	1.3	0.0	0.6	2.6	0.0	0.0	5.5
1996	0.9	0.8	0.1	1.9	0.7	1.3	0.0	0.6	2.5	0.0	0.0	5.2
1997	0.9	0.9	0.1	1.9	0.6	1.2	0.0	0.6	2.5	0.0	0.0	5.2

Table 17. Vitamin C contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	8.7	14.8	23.5	31.6	8.4	10.2	20.4	70.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1920-29	12.1	14.7	26.7	26.2	9.8	8.7	22.1	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
1930-39	16.5	13.0	29.5	23.0	10.4	9.4	21.2	63.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
1940-49	23.4	10.9	34.3	20.3	9.4	10.1	18.8	58.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
1950-59	24.6	12.0	36.6	20.5	8.0	10.2	16.9	55.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
1960-69	24.0	14.2	38.2	20.7	7.7	8.6	15.4	52.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
1970	25.4	14.5	39.9	18.5	6.5	9.2	14.7	48.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1971	26.8	14.3	41.2	17.4	6.4	9.5	14.5	47.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
1972	28.0	13.9	41.9	17.6	6.4	9.2	14.1	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1973	28.0	13.8	41.8	17.3	6.9	8.8	14.5	47.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1974	27.6	13.0	40.6	16.1	6.7	8.4	13.6	44.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
1975	28.5	12.9	41.4	16.4	6.6	8.3	13.4	44.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
1976	28.7	12.6	41.3	16.2	6.7	8.4	13.2	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
1977	28.4	13.1	41.5	15.8	6.5	8.3	13.6	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
1978	26.7	14.0	40.7	15.8	6.6	8.4	13.9	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1979	26.3	13.7	40.0	15.8	7.0	8.5	13.8	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1980	27.9	13.6	41.5	15.3	6.9	8.6	13.1	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1981	26.7	14.0	40.7	15.4	7.3	8.3	13.4	44.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1982	26.4	14.6	41.0	15.3	7.7	8.2	13.2	44.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
1983	29.5	13.8	43.3	15.0	7.4	7.8	12.3	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
1984	25.1	15.1	40.2	15.5	8.1	8.5	12.8	44.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1985	25.8	15.2	41.0	15.2	8.3	7.9	12.8	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1986	27.3	15.2	42.5	15.1	8.1	7.7	12.2	43.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1987	26.7	15.9	42.7	15.1	8.2	7.6	11.6	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1988	27.0	15.5	42.6	14.8	8.6	7.4	11.6	42.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
1989	24.4	16.9	41.3	15.1	8.7	7.9	11.6	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
1990	22.0	16.8	38.8	15.4	8.7	8.5	12.2	44.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
1991	23.8	16.2	40.0	15.2	8.7	8.3	11.6	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
1992	23.9	16.1	40.0	15.1	9.2	7.9	11.6	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
1993	27.3	15.4	42.7	15.1	8.8	7.8	11.3	42.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
1994	25.9	15.7	41.6	15.3	9.6	7.9	11.3	44.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
1995	27.0	15.3	42.3	14.9	9.8	7.8	11.0	43.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1996	26.3	15.9	42.2	15.2	10.3	7.6	10.8	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
1997	26.9	15.8	42.7	14.7	10.5	7.6	10.9	43.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9

Table 18. Thiamin contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	30.3	0.7	0.6	31.6	5.2	1.4	0.1	0.8	7.5	1.6	6.1	31.4
1920-29	31.7	0.7	0.7	33.2	5.9	1.2	0.1	1.3	8.5	1.7	6.1	27.4
1930-39	30.5	0.8	0.6	31.9	6.3	1.2	0.1	2.0	9.6	1.7	7.4	25.3
1940-49	27.4	0.8	0.4	28.7	5.9	0.8	0.1	2.2	8.9	1.5	6.1	35.9
1950-59	26.1	1.1	0.4	27.5	5.9	0.6	0.2	2.8	9.4	1.7	5.6	38.9
1960-69	24.6	1.4	0.3	26.3	5.1	1.1	0.2	2.8	9.2	1.5	5.6	41.1
1970	23.9	1.6	0.3	25.8	4.3	1.6	0.2	2.9	9.0	1.4	5.5	41.2
1971	24.8	1.5	0.3	26.6	4.1	1.6	0.2	2.8	8.7	1.3	5.3	41.3
1972	23.2	1.6	0.3	25.1	4.0	1.7	0.2	2.8	8.7	1.3	5.6	42.3
1973	21.0	1.5	0.4	22.8	3.8	1.8	0.2	2.9	8.7	1.2	6.1	44.1
1974	18.1	1.2	0.3	19.6	2.9	1.4	0.2	2.2	6.6	1.0	4.5	54.6
1975	15.3	1.2	0.3	16.7	2.8	1.2	0.2	2.0	6.3	1.0	4.9	56.7
1976	15.5	1.2	0.3	17.0	2.6	1.5	0.2	2.1	6.4	0.9	4.7	56.7
1977	16.1	1.2	0.3	17.6	2.5	1.5	0.2	2.1	6.3	0.9	4.8	56.5
1978	16.1	1.3	0.3	17.7	2.5	1.5	0.2	2.1	6.3	0.9	4.8	56.6
1979	16.9	1.3	0.3	18.5	2.3	1.5	0.2	2.1	6.1	0.9	4.7	56.4
1980	17.8	1.3	0.3	19.4	2.2	1.5	0.2	2.1	5.9	0.9	4.2	56.3
1981	17.3	1.4	0.3	18.9	2.1	1.5	0.2	1.9	5.8	0.9	4.5	56.6
1982	15.9	1.4	0.3	17.6	2.0	1.5	0.2	1.9	5.7	0.9	4.9	57.6
1983	16.5	1.4	0.3	18.2	1.9	1.6	0.2	2.0	5.7	0.9	4.9	56.8
1984	16.5	1.4	0.3	18.1	1.9	1.6	0.3	2.1	5.8	0.9	4.6	57.0
1985	16.1	1.4	0.3	17.7	1.7	1.6	0.3	2.1	5.7	0.8	4.9	57.6
1986	15.3	1.4	0.3	17.0	1.6	1.7	0.3	2.1	5.7	0.8	4.8	58.4
1987	15.0	1.5	0.3	16.7	1.5	1.7	0.3	2.1	5.5	0.8	4.3	59.9
1988	15.3	1.4	0.3	17.0	1.4	1.7	0.2	1.9	5.2	0.7	4.6	60.0
1989	15.2	1.5	0.3	17.0	1.3	1.8	0.2	1.8	5.2	0.7	4.4	60.2
1990	14.3	1.5	0.3	16.1	1.2	1.8	0.2	2.0	5.2	0.7	4.3	61.3
1991	14.8	1.5	0.3	16.6	1.1	1.8	0.2	1.9	5.0	0.7	4.4	61.2
1992	15.1	1.5	0.3	17.0	1.0	1.8	0.2	1.9	5.0	0.7	4.3	61.1
1993	14.7	1.6	0.3	16.6	1.0	1.7	0.2	1.8	4.8	0.7	4.2	61.5
1994	14.7	1.6	0.3	16.6	0.9	1.7	0.2	2.0	4.9	0.6	4.2	61.3
1995	14.9	1.6	0.3	16.8	0.9	1.7	0.3	1.8	4.8	0.6	4.2	61.3
1996	13.9	1.6	0.3	15.8	0.9	1.7	0.2	1.9	4.7	0.6	4.0	62.1
1997	13.7	1.6	0.3	15.6	0.9	1.7	0.3	1.9	4.7	0.6	4.2	62.2

Table 18. Thiamin contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.8	3.1	3.8	8.9	1.5	1.8	5.1	17.3	0.1	0.0	0.0	0.0	0.0	0.1	0.6	0.2
1920-29	1.1	3.7	4.8	7.9	1.8	1.6	6.1	17.4	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.3
1930-39	1.7	3.6	5.3	7.3	2.0	1.9	6.7	18.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4	0.3
1940-49	2.0	2.5	4.5	5.2	1.5	1.7	5.3	13.7	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3
1950-59	2.0	2.4	4.4	4.7	1.1	1.6	4.5	11.9	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3
1960-69	2.0	2.1	4.2	5.1	1.0	1.4	4.1	11.5	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4
1970	2.4	2.0	4.3	5.6	0.8	1.6	4.0	12.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6
1971	2.5	1.9	4.4	5.3	0.8	1.6	3.8	11.6	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6
1972	2.6	1.8	4.4	5.4	0.8	1.6	3.8	11.6	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.7
1973	2.6	1.8	4.4	5.5	0.8	1.5	3.9	11.7	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6
1974	2.2	1.4	3.6	4.5	0.7	1.2	3.1	9.5	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1975	2.3	1.5	3.8	4.8	0.7	1.3	3.2	9.9	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4
1976	2.3	1.5	3.8	4.8	0.7	1.3	3.1	9.8	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1977	2.3	1.5	3.8	4.5	0.6	1.2	3.1	9.4	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1978	2.1	1.5	3.6	4.5	0.6	1.2	3.0	9.4	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1979	2.0	1.5	3.6	4.2	0.7	1.2	3.0	9.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4
1980	2.2	1.6	3.7	4.0	0.7	1.2	2.9	8.9	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4
1981	2.0	1.6	3.6	4.2	0.7	1.2	2.9	9.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1982	2.0	1.7	3.7	4.1	0.7	1.2	2.9	9.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1983	2.3	1.7	4.0	4.1	0.7	1.2	2.8	8.8	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1984	2.0	1.8	3.8	4.2	0.7	1.3	2.9	9.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1985	1.9	1.8	3.7	4.2	0.7	1.2	2.8	8.8	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1986	2.1	1.8	3.9	4.2	0.7	1.2	2.7	8.7	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1987	2.0	1.8	3.8	4.0	0.7	1.1	2.5	8.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1988	2.0	1.8	3.7	3.8	0.6	1.0	2.4	7.9	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1989	1.8	1.8	3.6	4.0	0.6	1.1	2.5	8.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1990	1.6	1.7	3.3	4.0	0.6	1.2	2.5	8.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1991	1.6	1.7	3.2	4.0	0.6	1.1	2.4	8.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1992	1.6	1.7	3.3	3.9	0.6	1.1	2.4	8.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1993	1.8	1.6	3.5	4.0	0.6	1.1	2.3	8.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1994	1.7	1.6	3.4	4.1	0.7	1.1	2.4	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
1995	1.8	1.6	3.4	4.1	0.7	1.1	2.4	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
1996	1.8	1.6	3.4	4.3	0.7	1.1	2.3	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
1997	1.9	1.6	3.5	4.3	0.8	1.1	2.3	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6

Table 19. Riboflavin contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	20.8	1.8	0.9	23.5	23.6	5.6	1.1	3.8	34.0	11.1	1.6	14.3
1920-29	19.4	1.8	0.9	22.1	25.4	4.7	1.2	5.7	37.0	11.6	1.6	11.9
1930-39	18.1	1.8	0.9	20.8	26.1	4.3	1.4	8.1	39.9	11.1	1.7	10.2
1940-49	17.7	2.1	0.6	20.4	26.0	3.0	1.4	9.3	39.7	10.4	1.7	14.0
1950-59	16.7	3.3	0.6	20.7	24.6	2.2	1.8	10.2	38.8	11.2	1.4	15.8
1960-69	17.5	3.9	0.6	21.9	22.3	4.1	2.3	10.3	38.9	10.1	1.5	16.8
1970	17.7	3.4	0.6	21.7	19.1	5.8	2.6	10.5	38.0	9.5	1.5	18.9
1971	18.0	3.3	0.5	21.9	18.6	6.1	2.7	10.4	37.7	9.4	1.5	19.2
1972	17.5	3.5	0.6	21.5	18.1	6.4	2.9	10.1	37.5	9.3	1.6	19.8
1973	16.2	3.3	0.6	20.1	17.3	7.0	3.0	10.6	37.9	8.9	1.7	20.9
1974	14.9	2.8	0.5	18.2	14.0	5.8	2.7	8.5	31.0	7.5	1.3	32.9
1975	14.2	2.8	0.5	17.4	13.8	5.3	2.7	8.2	30.0	7.4	1.5	34.4
1976	14.4	2.9	0.5	17.7	12.9	6.4	2.8	8.3	30.3	7.0	1.5	34.3
1977	14.5	2.9	0.5	17.8	12.4	6.8	2.9	8.2	30.4	7.0	1.5	34.2
1978	14.0	3.0	0.5	17.5	12.1	6.8	3.1	8.3	30.3	7.2	1.5	34.4
1979	13.6	3.1	0.5	17.2	11.5	6.9	3.1	8.6	30.0	7.3	1.5	34.9
1980	13.9	3.1	0.4	17.5	10.9	7.1	3.2	8.4	29.6	7.1	1.4	35.1
1981	13.9	3.2	0.5	17.6	10.5	7.4	3.3	8.1	29.2	7.0	1.5	35.2
1982	13.2	3.2	0.4	16.9	10.1	7.4	3.6	8.2	29.3	7.1	1.6	35.7
1983	13.6	3.1	0.5	17.3	9.7	7.5	3.6	8.4	29.3	6.9	1.6	35.6
1984	13.5	3.1	0.5	17.1	9.4	7.7	3.7	8.7	29.5	6.8	1.5	35.6
1985	13.1	3.0	0.5	16.7	8.9	7.9	3.8	8.7	29.4	6.5	1.7	36.3
1986	12.9	3.1	0.5	16.6	8.3	8.2	3.8	9.1	29.5	6.4	1.6	36.6
1987	12.2	3.3	0.5	16.1	7.7	8.2	3.9	8.6	28.4	6.2	1.4	38.9
1988	12.2	3.3	0.5	15.9	7.3	8.2	3.7	8.3	27.5	6.0	1.5	40.1
1989	12.1	3.4	0.5	16.0	6.7	8.9	3.7	7.9	27.3	5.8	1.5	40.3
1990	11.6	3.4	0.5	15.5	6.1	9.0	3.8	8.6	27.5	5.6	1.5	40.8
1991	11.3	3.5	0.5	15.4	5.9	9.2	3.8	8.2	27.1	5.6	1.5	41.5
1992	11.5	3.6	0.5	15.6	5.6	9.2	3.9	8.4	27.2	5.6	1.5	40.8
1993	11.2	3.7	0.5	15.4	5.4	9.0	3.9	8.4	26.7	5.6	1.5	41.5
1994	11.4	3.6	0.5	15.5	5.2	8.9	3.9	9.1	27.1	5.5	1.5	41.1
1995	11.8	3.7	0.5	16.0	5.0	9.1	4.1	8.3	26.5	5.6	1.5	41.2
1996	11.3	3.7	0.5	15.6	4.9	9.0	4.1	8.4	26.3	5.5	1.4	41.7
1997	11.2	3.8	0.5	15.5	4.8	8.9	4.1	8.4	26.1	5.6	1.5	41.9

Table 19. Riboflavin contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.3	2.9	3.2	2.8	2.3	1.2	3.5	9.8	0.3	0.0	0.0	0.0	0.0	0.4	1.0	1.2
1920-29	0.5	3.0	3.4	2.4	2.4	1.0	4.0	9.9	0.4	0.0	0.0	0.0	0.0	0.4	1.0	1.2
1930-39	0.7	2.9	3.5	2.1	2.7	1.2	4.2	10.2	0.4	0.0	0.0	0.0	0.0	0.4	1.0	1.2
1940-49	0.8	2.1	2.9	1.6	2.7	1.2	3.5	9.0	0.2	0.1	0.0	0.0	0.0	0.3	0.7	1.0
1950-59	0.6	1.9	2.5	1.3	2.4	1.1	2.9	7.7	0.1	0.1	0.0	0.0	0.0	0.3	0.6	0.9
1960-69	0.5	1.8	2.4	1.2	1.4	1.0	2.8	6.4	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.1
1970	0.6	1.7	2.3	1.2	0.9	1.1	2.7	5.9	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.2
1971	0.6	1.7	2.3	1.2	0.8	1.1	2.7	5.8	0.1	0.2	0.0	0.0	0.0	0.2	0.7	1.2
1972	0.6	1.6	2.2	1.2	0.9	1.1	2.7	5.8	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.4
1973	0.6	1.7	2.3	1.2	0.9	1.1	2.8	5.9	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.3
1974	0.5	1.4	2.0	1.0	0.8	0.9	2.4	5.1	0.1	0.1	0.0	0.0	0.0	0.2	0.6	1.2
1975	0.6	1.5	2.1	1.1	0.8	1.0	2.4	5.3	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1976	0.6	1.5	2.0	1.0	0.8	1.0	2.4	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1977	0.6	1.5	2.1	1.0	0.7	1.0	2.4	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1978	0.5	1.6	2.1	1.0	0.7	0.9	2.4	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1979	0.5	1.6	2.1	1.0	0.8	1.0	2.4	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.0
1980	0.6	1.6	2.2	1.0	0.7	1.0	2.5	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1981	0.5	1.7	2.2	1.0	0.8	0.9	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1982	0.5	1.7	2.2	1.0	0.8	1.0	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1983	0.6	1.7	2.3	1.0	0.7	1.0	2.4	5.1	0.1	0.1	0.0	0.0	0.0	0.2	0.6	1.1
1984	0.5	1.8	2.3	1.0	0.8	1.0	2.4	5.2	0.1	0.1	0.0	0.0	0.0	0.2	0.6	1.2
1985	0.5	1.8	2.2	1.0	0.8	1.0	2.4	5.1	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1986	0.5	1.8	2.3	1.0	0.7	1.0	2.4	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.2
1987	0.5	1.8	2.3	0.9	0.7	0.9	2.2	4.7	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1988	0.5	1.8	2.3	0.9	0.7	0.9	2.2	4.7	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.1
1989	0.5	1.8	2.3	0.9	0.7	1.0	2.2	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1990	0.4	1.7	2.1	0.9	0.7	1.0	2.2	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1991	0.4	1.7	2.1	0.9	0.7	1.0	2.2	4.8	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1992	0.4	1.8	2.2	0.9	0.7	1.0	2.2	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.4
1993	0.5	1.8	2.3	1.0	0.7	1.0	2.2	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1994	0.4	1.8	2.2	1.0	0.7	1.0	2.2	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1995	0.5	1.7	2.2	1.0	0.8	1.0	2.2	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1996	0.5	1.8	2.2	1.0	0.8	1.0	2.2	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.4
1997	0.5	1.8	2.3	1.0	0.8	1.0	2.2	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3

Table 20. Niacin contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
	Percent											
1909-19	31.5	5.2	3.0	39.6	1.2	0.3	0.0	0.2	1.7	0.2	3.0	28.3
1920-29	32.2	5.4	3.3	40.9	1.4	0.3	0.0	0.4	2.1	0.2	3.7	24.8
1930-39	31.8	5.7	3.4	40.9	1.5	0.3	0.1	0.6	2.3	0.2	4.5	22.5
1940-49	31.2	6.5	2.5	40.2	1.5	0.2	0.1	0.7	2.4	0.2	4.9	26.7
1950-59	30.6	6.9	3.3	40.8	1.5	0.1	0.1	0.8	2.5	0.2	4.4	28.9
1960-69	29.4	10.2	3.3	42.8	1.2	0.2	0.1	0.7	2.3	0.2	4.9	28.1
1970	28.3	12.4	3.3	44.0	1.0	0.3	0.1	0.7	2.1	0.1	4.8	27.9
1971	28.7	12.3	3.2	44.2	1.0	0.3	0.1	0.7	2.1	0.1	4.7	28.3
1972	27.5	12.7	3.6	43.8	1.0	0.3	0.1	0.6	2.1	0.1	5.0	28.5
1973	25.5	12.3	3.7	41.6	0.9	0.4	0.1	0.7	2.1	0.1	5.4	30.2
1974	22.6	10.2	2.9	35.8	0.7	0.3	0.1	0.5	1.7	0.1	4.3	41.1
1975	22.4	9.8	2.7	34.9	0.7	0.3	0.1	0.5	1.6	0.1	4.4	41.9
1976	22.7	10.3	2.8	35.7	0.6	0.3	0.1	0.5	1.6	0.1	4.1	41.7
1977	22.9	10.5	2.8	36.2	0.6	0.3	0.1	0.5	1.6	0.1	4.2	41.8
1978	22.1	11.0	3.1	36.2	0.6	0.3	0.1	0.5	1.6	0.1	4.3	41.7
1979	21.2	11.4	2.9	35.6	0.6	0.3	0.1	0.5	1.5	0.1	4.2	42.4
1980	21.7	11.6	2.8	36.1	0.5	0.4	0.1	0.5	1.5	0.1	3.6	42.7
1981	21.3	11.9	2.8	36.0	0.5	0.4	0.1	0.5	1.5	0.1	4.0	42.5
1982	20.4	11.9	2.7	35.1	0.5	0.4	0.1	0.4	1.4	0.1	4.3	43.2
1983	20.8	11.8	3.0	35.6	0.5	0.4	0.1	0.5	1.4	0.1	4.2	42.7
1984	20.5	12.0	3.0	35.5	0.5	0.4	0.1	0.5	1.4	0.1	4.2	42.5
1985	20.0	12.1	3.1	35.1	0.4	0.4	0.1	0.5	1.4	0.1	4.4	43.3
1986	19.4	12.3	3.2	34.8	0.4	0.4	0.1	0.5	1.4	0.1	4.3	43.7
1987	18.4	12.9	3.1	34.5	0.4	0.4	0.1	0.5	1.4	0.1	4.2	44.8
1988	18.3	12.8	3.0	34.2	0.4	0.4	0.1	0.5	1.3	0.1	4.4	45.4
1989	17.8	13.2	3.2	34.1	0.3	0.4	0.1	0.4	1.3	0.1	4.4	45.2
1990	17.0	13.5	3.0	33.5	0.3	0.4	0.1	0.5	1.3	0.1	3.9	46.4
1991	16.4	13.8	3.0	33.2	0.3	0.4	0.1	0.4	1.3	0.1	4.1	46.7
1992	16.4	14.2	2.9	33.5	0.3	0.4	0.1	0.4	1.3	0.1	3.8	46.7
1993	15.9	14.5	2.9	33.3	0.2	0.4	0.1	0.4	1.3	0.1	3.7	47.2
1994	16.1	14.5	2.8	33.5	0.2	0.4	0.1	0.5	1.3	0.1	3.5	47.3
1995	16.4	14.6	2.9	33.9	0.2	0.4	0.1	0.4	1.2	0.1	3.5	47.1
1996	15.8	14.7	2.8	33.3	0.2	0.4	0.1	0.4	1.2	0.1	3.5	47.4
1997	15.6	14.9	2.7	33.2	0.2	0.4	0.1	0.4	1.2	0.1	3.5	47.5

Table 20. Niacin contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.2	2.8	3.0	13.9	1.4	2.0	3.6	20.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.1
1920-29	0.4	3.1	3.5	12.7	1.6	2.0	4.5	20.8	0.1	0.0	0.0	0.0	0.0	0.1	0.1	4.0
1930-39	0.6	3.2	3.7	11.8	1.8	2.3	5.0	20.9	0.1	0.0	0.0	0.0	0.0	0.1	0.1	4.7
1940-49	0.8	2.6	3.3	9.1	1.5	2.4	4.4	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9
1950-59	0.7	2.4	3.1	7.9	1.1	2.3	3.7	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1
1960-69	0.6	2.1	2.7	7.6	0.9	2.0	3.3	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
1970	0.7	1.9	2.7	7.5	0.8	2.3	3.1	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
1971	0.8	1.9	2.6	7.1	0.7	2.4	3.1	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1972	0.8	1.7	2.5	7.1	0.8	2.3	3.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1973	0.8	1.8	2.5	7.1	0.8	2.2	3.1	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1974	0.7	1.5	2.1	5.8	0.7	1.9	2.5	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1975	0.7	1.5	2.2	6.0	0.7	1.9	2.6	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
1976	0.7	1.4	2.1	5.9	0.6	1.9	2.5	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
1977	0.7	1.5	2.2	5.8	0.6	1.8	2.6	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
1978	0.6	1.6	2.2	5.7	0.6	1.8	2.5	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1979	0.6	1.6	2.2	5.6	0.6	1.9	2.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
1980	0.7	1.6	2.2	5.5	0.6	1.8	2.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1981	0.6	1.6	2.2	5.5	0.6	1.8	2.5	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1982	0.6	1.6	2.2	5.5	0.7	1.8	2.5	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1983	0.7	1.6	2.3	5.5	0.6	1.8	2.4	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1984	0.6	1.7	2.3	5.5	0.7	1.9	2.4	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1985	0.6	1.6	2.2	5.4	0.6	1.7	2.4	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1986	0.6	1.6	2.2	5.5	0.6	1.7	2.4	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1987	0.6	1.7	2.3	5.2	0.6	1.7	2.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1988	0.6	1.6	2.2	5.1	0.6	1.6	2.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
1989	0.5	1.6	2.1	5.2	0.6	1.8	2.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
1990	0.5	1.5	2.0	5.1	0.6	1.8	2.2	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1991	0.5	1.5	2.0	5.1	0.6	1.8	2.1	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
1992	0.5	1.5	2.0	5.1	0.6	1.7	2.1	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
1993	0.6	1.5	2.1	5.2	0.6	1.8	2.1	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
1994	0.5	1.5	2.0	5.3	0.6	1.8	2.1	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
1995	0.6	1.4	2.0	5.2	0.6	1.8	2.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
1996	0.6	1.4	2.0	5.3	0.7	1.7	2.1	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
1997	0.6	1.5	2.1	5.2	0.8	1.7	2.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7

Table 21. Vitamin B_6 contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	23.2	2.5	1.5	27.2	5.1	1.4	0.2	0.6	7.2	2.5	3.0	17.6
1920-29	23.3	2.6	1.5	27.5	5.9	1.3	0.2	1.0	8.5	2.8	3.1	14.7
1930-39	23.0	2.8	1.4	27.2	6.4	1.2	0.3	1.6	9.5	2.8	3.6	13.0
1940-49	26.4	3.7	1.3	31.4	7.6	1.0	0.4	2.2	11.1	3.2	3.8	10.6
1950-59	28.4	4.9	1.6	34.8	7.8	0.8	0.6	2.7	11.8	3.7	3.7	8.4
1960-69	29.7	7.0	1.5	38.2	6.8	1.2	0.7	2.9	11.7	3.2	3.7	8.4
1970	29.3	7.9	1.5	38.7	5.6	1.7	0.8	4.1	12.1	2.9	3.4	9.5
1971	29.9	8.0	1.4	39.3	5.5	1.7	0.8	4.1	12.1	2.9	3.4	9.4
1972	29.2	8.3	1.6	39.1	5.3	1.8	0.9	4.0	12.1	2.8	3.7	9.3
1973	27.7	8.2	1.6	37.5	5.2	2.0	0.9	4.3	12.4	2.8	4.2	9.6
1974	27.6	7.6	1.4	36.6	4.5	1.9	0.9	3.8	11.0	2.5	3.5	15.1
1975	25.0	7.6	1.4	34.0	4.5	1.7	0.9	3.7	10.8	2.5	4.0	15.8
1976	25.5	8.0	1.6	35.1	4.2	2.1	0.9	3.8	10.9	2.4	3.9	15.5
1977	25.4	8.0	1.5	35.0	4.0	2.2	0.9	3.7	10.8	2.4	3.9	15.9
1978	24.9	8.4	1.7	35.0	3.9	2.2	1.0	3.8	10.9	2.4	3.8	16.1
1979	23.8	8.7	1.6	34.1	3.7	2.2	1.0	3.8	10.7	2.4	3.9	16.9
1980	24.2	8.9	1.5	34.6	3.5	2.3	1.0	3.8	10.5	2.4	3.6	17.1
1981	24.0	9.1	1.5	34.6	3.3	2.3	1.0	3.6	10.3	2.3	3.7	17.3
1982	23.0	9.1	1.5	33.6	3.2	2.3	1.1	3.7	10.2	2.3	4.0	17.5
1983	23.5	9.1	1.6	34.2	3.1	2.3	1.1	3.7	10.2	2.2	4.0	17.4
1984	23.2	9.2	1.7	34.1	2.9	2.4	1.1	3.8	10.2	2.2	3.7	17.5
1985	23.1	9.3	1.7	34.0	2.8	2.5	1.1	3.8	10.1	2.1	4.1	17.8
1986	22.9	9.4	1.7	34.1	2.6	2.6	1.1	3.8	10.0	2.1	3.9	18.1
1987	22.4	10.1	1.8	34.3	2.5	2.6	1.1	3.7	9.9	2.1	3.6	18.8
1988	22.4	10.2	1.7	34.3	2.3	2.6	1.1	3.6	9.6	2.0	3.9	19.4
1989	21.8	10.5	1.8	34.0	2.1	2.8	1.1	3.5	9.5	1.9	3.7	19.7
1990	21.0	10.8	1.7	33.5	1.9	2.9	1.1	3.7	9.6	1.8	3.7	20.6
1991	20.7	11.0	1.7	33.4	1.8	2.9	1.1	3.5	9.3	1.8	3.7	21.2
1992	20.6	11.1	1.6	33.3	1.7	2.8	1.1	3.5	9.1	1.8	3.7	21.2
1993	20.1	11.4	1.6	33.1	1.6	2.8	1.1	3.5	9.0	1.8	3.6	21.2
1994	20.3	11.3	1.6	33.2	1.6	2.8	1.1	3.6	9.0	1.7	3.6	21.2
1995	20.6	11.3	1.6	33.6	1.5	2.8	1.1	3.4	8.8	1.7	3.6	21.2
1996	20.1	11.5	1.6	33.1	1.5	2.8	1.1	3.4	8.8	1.7	3.4	20.8
1997	19.9	11.7	1.6	33.2	1.4	2.7	1.1	3.4	8.7	1.7	3.6	20.9

Table 21. Vitamin B_6 contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.5	8.0	8.5	21.3	3.6	2.2	5.3	32.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.3
1920-29	0.7	9.4	10.2	19.4	4.0	2.1	6.1	31.6	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.4
1930-39	1.1	9.5	10.6	18.1	4.4	2.5	6.5	31.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.6
1940-49	1.6	7.7	9.3	16.1	3.9	3.0	6.3	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5
1950-59	1.6	8.7	10.2	14.8	2.8	3.1	5.6	26.3	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6
1960-69	1.4	8.0	9.5	13.9	2.4	2.7	5.1	24.2	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.7
1970	1.6	7.2	8.8	13.1	2.2	3.2	4.9	23.4	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.9
1971	1.7	7.3	8.9	12.5	2.1	3.4	4.8	22.7	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.8
1972	1.8	7.0	8.8	12.7	2.2	3.2	4.7	22.9	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.0
1973	1.8	7.3	9.1	12.7	2.3	3.1	5.0	23.2	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.0
1974	1.7	6.8	8.5	11.6	2.2	3.0	4.7	21.5	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.0
1975	1.8	6.9	8.8	12.6	2.3	3.1	4.9	22.9	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.9
1976	1.8	7.0	8.8	12.2	2.2	3.1	4.7	22.2	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.9
1977	1.8	7.1	8.9	12.0	2.0	3.0	4.9	21.8	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.9
1978	1.7	7.4	9.1	11.7	2.0	2.9	4.8	21.5	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.9
1979	1.6	7.5	9.1	11.5	2.1	3.0	5.0	21.7	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.9
1980	1.8	7.5	9.3	11.4	2.0	3.0	4.9	21.4	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.9
1981	1.7	7.7	9.4	11.3	2.1	2.9	4.7	21.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.0
1982	1.6	8.1	9.8	11.3	2.2	2.9	4.8	21.2	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.0
1983	1.9	7.7	9.6	11.4	2.1	2.9	4.7	21.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.0
1984	1.5	8.1	9.6	11.4	2.2	3.1	4.6	21.3	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1985	1.5	8.2	9.7	11.0	2.2	2.8	4.7	20.8	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1986	1.7	8.4	10.1	11.1	2.0	2.8	4.4	20.4	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1987	1.6	8.5	10.1	10.8	2.0	2.7	4.3	19.9	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1988	1.6	8.2	9.8	10.6	2.0	2.6	4.4	19.6	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.1
1989	1.5	8.3	9.8	10.7	2.1	2.8	4.3	20.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.2
1990	1.3	8.0	9.3	10.5	2.1	3.0	4.5	20.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.4
1991	1.3	7.9	9.2	10.5	2.0	2.9	4.4	19.8	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.3
1992	1.3	8.2	9.5	10.4	2.1	2.8	4.4	19.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.4
1993	1.6	8.1	9.7	10.7	2.1	2.8	4.5	20.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.4
1994	1.5	8.1	9.6	10.8	2.2	2.8	4.5	20.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
1995	1.5	8.0	9.6	10.6	2.2	2.8	4.5	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
1996	1.5	8.2	9.7	11.0	2.4	2.8	4.6	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
1997	1.6	8.1	9.7	10.7	2.5	2.8	4.6	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3

Table 22. Folate contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	5.3	1.8	0.5	7.6	4.3	1.2	0.3	0.6	6.4	6.1	21.7	24.1
1920-29	5.1	1.8	0.5	7.4	4.8	1.1	0.4	0.9	7.1	6.6	20.1	20.6
1930-39	4.7	1.8	0.4	6.9	4.8	0.9	0.4	1.3	7.5	6.2	22.3	17.7
1940-49	5.4	2.4	0.4	8.2	5.7	0.8	0.5	1.8	8.8	6.9	21.7	15.3
1950-59	5.7	3.3	0.4	9.4	6.1	0.6	0.8	2.3	9.8	8.3	20.6	13.1
1960-69	6.2	3.7	0.4	10.2	5.6	1.1	1.0	2.4	10.0	7.6	20.6	12.9
1970	6.4	3.4	0.4	10.2	4.9	1.5	1.2	2.3	9.8	7.3	20.1	12.9
1971	6.5	3.3	0.4	10.2	4.7	1.6	1.2	2.3	9.8	7.3	19.9	12.7
1972	6.3	3.4	0.5	10.1	4.6	1.7	1.3	2.1	9.6	7.1	19.9	12.7
1973	5.6	3.1	0.4	9.2	4.3	1.8	1.3	2.2	9.5	6.6	22.3	12.8
1974	5.3	2.7	0.4	8.4	3.6	1.5	1.1	1.7	7.9	5.7	17.1	25.6
1975	5.2	2.5	0.4	8.0	3.3	1.3	1.1	1.5	7.3	5.4	18.6	25.6
1976	5.3	2.6	0.4	8.3	3.2	1.6	1.1	1.5	7.5	5.2	17.9	25.9
1977	5.2	2.6	0.4	8.2	3.0	1.7	1.2	1.5	7.4	5.2	18.2	26.0
1978	5.1	2.7	0.4	8.2	3.0	1.7	1.2	1.5	7.5	5.4	17.3	26.8
1979	4.8	2.7	0.4	7.9	2.8	1.7	1.2	1.5	7.3	5.3	18.2	27.2
1980	4.8	2.7	0.4	7.9	2.7	1.8	1.2	1.5	7.2	5.3	16.3	27.8
1981	4.8	2.7	0.4	7.9	2.6	1.9	1.3	1.3	7.1	5.2	17.1	27.8
1982	4.5	2.5	0.4	7.3	2.4	1.8	1.4	1.3	6.9	5.1	18.5	27.6
1983	4.6	2.4	0.4	7.3	2.3	1.8	1.4	1.3	6.9	5.0	18.4	27.7
1984	4.7	2.2	0.4	7.3	2.3	2.0	1.5	1.5	7.2	5.1	16.6	28.8
1985	4.4	2.0	0.4	6.8	2.2	2.0	1.4	1.4	7.0	4.7	19.0	28.6
1986	4.3	2.1	0.4	6.8	2.0	2.1	1.4	1.5	7.0	4.7	18.3	29.2
1987	4.3	2.4	0.4	7.1	2.0	2.2	1.5	1.5	7.1	4.8	16.2	31.1
1988	4.0	2.3	0.4	6.6	1.8	2.1	1.4	1.4	6.7	4.5	18.3	30.9
1989	4.1	2.3	0.4	6.8	1.7	2.3	1.4	1.4	6.8	4.4	17.0	31.9
1990	3.9	2.3	0.4	6.6	1.5	2.4	1.4	1.5	6.8	4.3	17.3	33.2
1991	3.7	2.3	0.4	6.4	1.4	2.3	1.4	1.4	6.5	4.1	17.8	33.2
1992	3.7	2.2	0.4	6.3	1.4	2.3	1.4	1.4	6.4	4.0	17.8	33.6
1993	3.6	2.1	0.4	6.1	1.3	2.3	1.4	1.3	6.3	4.0	17.1	33.7
1994	3.7	2.1	0.4	6.2	1.2	2.2	1.4	1.5	6.4	4.0	17.5	33.7
1995	3.8	2.2	0.4	6.3	1.2	2.3	1.4	1.4	6.3	4.0	17.5	33.5
1996	3.7	2.2	0.4	6.3	1.2	2.3	1.4	1.4	6.3	4.0	16.9	33.7
1997	3.6	2.2	0.4	6.2	1.1	2.2	1.4	1.4	6.2	4.0	17.4	33.3

Table 22. Folate contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	1.4	2.7	4.1	7.1	2.3	2.5	16.0	27.9	0.2	0.0	0.0	0.0	0.0	0.2	0.0	2.0
1920-29	2.0	3.0	5.0	6.2	4.0	2.3	18.5	31.1	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.8
1930-39	2.8	2.9	5.7	5.4	4.8	2.5	19.0	31.7	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.7
1940-49	4.1	2.6	6.7	4.8	4.6	2.9	18.3	30.6	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.6
1950-59	5.3	2.9	8.2	4.6	3.8	2.9	17.4	28.7	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.7
1960-69	5.7	2.9	8.7	4.8	3.4	2.5	17.1	27.9	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1970	6.9	2.8	9.7	4.9	2.9	3.2	16.5	27.6	0.1	0.1	0.0	0.0	0.0	0.1	0.0	2.4
1971	7.5	2.8	10.3	4.7	2.9	3.3	16.5	27.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	2.4
1972	8.1	2.7	10.8	4.7	2.9	3.2	16.2	27.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	2.6
1973	7.8	2.6	10.4	4.6	2.9	2.9	16.2	26.6	0.1	0.1	0.0	0.0	0.0	0.1	0.0	2.5
1974	7.3	2.3	9.6	3.9	2.6	2.7	14.2	23.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1975	7.7	2.3	10.0	4.0	2.5	2.7	13.8	23.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1976	7.8	2.3	10.1	4.0	2.5	2.7	13.8	22.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1977	7.6	2.4	10.0	3.9	2.4	2.6	14.1	23.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1978	6.8	2.5	9.4	3.9	2.5	2.6	14.2	23.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1979	6.8	2.5	9.3	3.8	2.6	2.6	13.7	22.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1980	7.5	2.5	10.0	3.8	2.6	2.7	14.1	23.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1981	7.0	2.7	9.7	3.8	2.7	2.5	13.9	23.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1982	7.1	2.7	9.9	3.7	2.8	2.5	13.6	22.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1983	8.3	2.7	11.0	3.8	2.6	2.4	12.8	21.6	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1984	7.1	2.9	10.0	3.9	2.8	2.6	13.4	22.7	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1985	7.1	2.8	9.9	3.7	2.8	2.3	12.8	21.7	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1986	7.8	2.9	10.7	3.8	2.6	2.3	12.4	21.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1987	7.4	3.2	10.5	3.8	2.6	2.3	12.2	20.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1988	7.4	2.9	10.3	3.6	2.6	2.2	12.2	20.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1989	6.4	3.1	9.5	3.7	2.7	2.4	12.6	21.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1990	5.5	2.9	8.4	3.6	2.6	2.5	12.4	21.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1991	6.7	2.8	9.5	3.5	2.5	2.4	11.7	20.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1992	6.4	2.9	9.3	3.6	2.6	2.3	11.7	20.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.3
1993	7.6	2.9	10.5	3.6	2.5	2.3	11.4	19.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.3
1994	7.3	2.8	10.0	3.7	2.6	2.3	11.4	19.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1995	7.7	2.8	10.4	3.6	2.7	2.3	11.1	19.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1996	7.5	2.9	10.4	3.7	2.8	2.3	11.1	20.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.3
1997	7.8	2.9	10.6	3.6	2.9	2.3	11.2	20.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2

Table 23. Vitamin B_{12} contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	65.2	2.6	9.6	77.4	11.8	3.4	0.7	1.1	17.0	5.1	0.0	0.2
1920-29	62.5	2.7	9.4	74.5	13.5	3.0	0.8	1.9	19.2	5.7	0.0	0.2
1930-39	61.0	2.9	8.3	72.3	14.6	2.9	1.0	3.0	21.5	5.7	0.0	0.1
1940-49	62.4	3.4	6.5	72.3	15.0	2.0	1.1	3.7	21.8	5.5	0.0	0.1
1950-59	61.7	4.3	5.6	71.7	14.3	1.4	1.5	4.8	22.0	6.0	0.0	0.1
1960-69	63.6	4.7	5.0	73.3	12.1	2.2	1.8	4.9	21.0	5.0	0.0	0.5
1970	63.9	4.2	5.6	73.7	10.0	3.0	1.9	4.9	19.9	4.6	0.0	1.6
1971	64.5	4.1	4.9	73.6	9.9	3.2	2.0	4.9	20.0	4.6	0.0	1.6
1972	64.0	4.3	5.3	73.6	9.7	3.4	2.2	4.6	20.0	4.6	0.0	1.6
1973	61.9	4.2	6.2	72.4	9.7	3.9	2.4	5.2	21.1	4.6	0.0	1.7
1974	65.5	4.1	6.0	75.6	9.0	3.8	2.4	4.6	19.7	4.4	0.0	0.1
1975	64.9	4.2	6.3	75.4	9.2	3.6	2.5	4.5	19.8	4.5	0.0	0.1
1976	65.6	4.3	5.7	75.5	8.6	4.3	2.6	4.5	19.9	4.3	0.0	0.1
1977	65.1	4.3	6.2	75.5	8.3	4.6	2.7	4.4	20.0	4.3	0.0	0.1
1978	64.3	4.5	5.9	74.7	8.3	4.7	2.9	4.7	20.5	4.5	0.0	0.1
1979	63.1	4.8	6.0	73.9	8.2	5.0	3.0	4.9	21.1	4.7	0.0	0.1
1980	63.2	4.7	6.3	74.2	7.8	5.2	3.0	4.8	20.8	4.7	0.0	0.1
1981	62.6	4.7	7.8	75.2	7.4	5.3	3.1	4.3	20.0	4.5	0.0	0.1
1982	62.1	4.7	7.3	74.2	7.3	5.5	3.4	4.5	20.8	4.7	0.0	0.1
1983	62.8	4.5	7.5	74.8	7.0	5.5	3.4	4.6	20.4	4.5	0.0	0.1
1984	62.1	4.2	8.4	74.7	6.7	5.6	3.5	4.8	20.6	4.4	0.0	0.1
1985	61.5	4.0	9.0	74.5	6.5	5.9	3.6	4.8	20.8	4.3	0.0	0.1
1986	63.2	4.3	6.3	73.9	6.2	6.3	3.7	5.2	21.4	4.4	0.0	0.1
1987	61.2	4.8	8.2	74.2	5.9	6.4	3.8	5.1	21.2	4.3	0.0	0.1
1988	61.1	4.8	8.2	74.1	5.7	6.7	3.8	5.0	21.3	4.3	0.0	0.1
1989	61.2	4.8	8.4	74.5	5.3	7.2	3.8	4.8	21.1	4.1	0.0	0.1
1990	60.5	5.0	8.1	73.6	4.9	7.6	4.0	5.4	21.9	4.1	0.0	0.1
1991	59.5	5.2	9.0	73.7	4.8	7.8	4.1	5.1	21.8	4.2	0.0	0.1
1992	59.7	5.1	8.8	73.7	4.6	7.8	4.1	5.3	21.8	4.2	0.0	0.1
1993	59.5	5.2	8.8	73.5	4.5	7.9	4.2	5.3	21.9	4.3	0.0	0.1
1994	60.0	5.1	8.3	73.4	4.3	7.8	4.1	5.9	22.1	4.2	0.0	0.1
1995	60.6	5.0	8.8	74.4	4.0	7.7	4.2	5.3	21.2	4.1	0.0	0.1
1996	60.2	5.1	8.7	74.1	4.0	7.7	4.2	5.6	21.5	4.1	0.0	0.1
1997	60.6	5.3	8.0	73.8	4.0	7.7	4.3	5.6	21.6	4.2	0.0	0.1

Table 23. Vitamin B_{12} contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
									Percent							
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0
1950-59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0
1960-69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1971	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1972	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1973	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0

Table 24. Calcium contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	1.4	0.2	1.8	3.4	42.5	11.9	4.8	6.9	66.1	2.6	5.4	7.9
1920-29	1.2	0.2	1.9	3.3	43.3	9.5	4.9	10.2	67.9	2.6	4.5	6.6
1930-39	1.1	0.2	1.9	3.2	42.0	8.1	5.3	13.9	69.3	2.3	4.8	5.5
1940-49	1.1	0.2	1.4	2.7	44.4	5.9	5.6	17.0	73.0	2.3	4.2	4.4
1950-59	1.2	0.3	1.3	2.8	44.1	4.5	7.4	19.5	75.6	2.6	3.8	3.7
1960-69	1.2	0.5	1.0	2.8	39.9	7.5	9.5	19.3	76.2	2.4	3.7	3.6
1970	1.3	0.6	1.1	2.9	34.9	10.8	10.8	19.1	75.6	2.3	3.6	3.6
1971	1.3	0.6	1.0	2.9	34.1	11.3	11.4	18.9	75.6	2.3	3.6	3.5
1972	1.3	0.6	1.1	2.9	33.2	12.0	12.4	17.9	75.4	2.2	3.7	3.5
1973	1.1	0.5	1.1	2.8	31.3	12.8	12.6	18.6	75.3	2.1	4.2	3.6
1974	1.3	0.6	1.0	2.8	30.7	13.0	14.0	17.2	74.9	2.2	3.7	3.9
1975	1.3	0.6	0.9	2.8	30.7	12.0	14.3	16.5	73.5	2.2	4.5	4.1
1976	1.3	0.6	1.0	2.9	28.4	14.4	14.9	16.4	74.1	2.0	4.2	4.0
1977	1.3	0.6	1.0	2.9	27.3	15.3	15.5	16.0	74.2	2.0	4.3	4.1
1978	1.3	0.6	1.0	3.0	26.6	15.2	16.5	16.2	74.5	2.1	4.0	4.1
1979	1.2	0.7	1.0	2.9	25.4	15.6	16.6	16.5	74.0	2.1	4.3	4.2
1980	1.3	0.7	0.9	2.8	24.4	16.3	17.1	16.2	74.0	2.1	4.0	4.3
1981	1.3	0.7	1.0	3.0	23.6	16.9	17.9	15.1	73.6	2.1	4.2	4.4
1982	1.2	0.7	0.9	2.8	22.3	16.8	19.4	15.0	73.4	2.0	4.6	4.4
1983	1.2	0.7	0.9	2.8	21.5	17.0	19.7	15.4	73.6	2.0	4.5	4.3
1984	1.2	0.7	1.0	2.9	20.5	17.3	20.2	16.0	74.1	2.0	4.0	4.2
1985	1.2	0.7	1.0	2.9	19.4	17.8	20.7	15.7	73.8	1.9	4.6	4.3
1986	1.1	0.7	1.0	2.9	18.2	18.6	20.9	16.4	74.1	1.8	4.3	4.4
1987	1.1	0.8	1.0	2.9	17.5	19.0	21.9	16.2	74.5	1.8	3.8	4.7
1988	1.1	0.8	0.9	2.9	16.6	19.5	21.6	15.9	73.6	1.8	4.5	5.0
1989	1.1	0.9	1.0	2.9	15.4	21.2	21.6	15.3	73.6	1.7	4.1	5.0
1990	1.0	0.9	1.0	2.9	13.9	21.4	21.8	16.5	73.6	1.7	4.2	5.1
1991	1.3	0.9	1.0	3.2	13.5	21.8	22.0	15.8	73.0	1.7	4.4	5.2
1992	1.3	0.9	0.9	3.1	12.8	21.6	22.4	16.0	72.8	1.7	4.5	5.3
1993	1.3	0.9	0.9	3.1	12.3	21.5	22.6	16.0	72.4	1.7	4.4	5.5
1994	1.3	0.9	0.9	3.1	11.7	21.1	22.3	17.6	72.8	1.6	4.4	5.4
1995	1.3	1.0	0.9	3.2	11.5	21.7	23.3	16.1	72.5	1.7	4.4	5.5
1996	1.3	1.0	0.9	3.2	11.2	21.5	23.3	16.3	72.3	1.7	4.3	5.5
1997	1.3	1.0	0.9	3.2	10.9	21.3	23.6	16.3	72.1	1.7	4.4	5.5

Table 24. Calcium contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.8	1.8	2.6	1.6	1.3	0.7	5.2	8.7	0.7	0.1	0.0	0.0	0.0	0.7	1.4	1.2
1920-29	1.0	1.9	2.9	1.3	1.7	0.6	5.3	8.9	0.6	0.1	0.0	0.0	0.0	0.7	1.1	1.5
1930-39	1.4	1.6	3.0	1.1	1.9	0.6	5.0	8.6	0.6	0.1	0.0	0.0	0.0	0.7	1.0	1.6
1940-49	1.7	1.3	3.0	0.9	1.7	0.6	4.3	7.4	0.4	0.1	0.0	0.0	0.0	0.5	0.8	1.6
1950-59	1.3	1.2	2.5	0.8	1.3	0.6	3.7	6.3	0.3	0.3	0.0	0.0	0.0	0.6	0.5	1.5
1960-69	1.1	1.1	2.2	0.9	1.1	0.6	3.5	6.0	0.2	0.4	0.0	0.0	0.0	0.6	0.6	1.9
1970	1.2	1.1	2.3	0.9	0.9	0.9	3.5	6.2	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1971	1.3	1.1	2.4	0.9	0.9	1.0	3.5	6.2	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1972	1.3	1.0	2.3	0.9	0.9	0.9	3.4	6.2	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.4
1973	1.2	1.0	2.3	0.9	1.0	0.9	3.5	6.2	0.2	0.4	0.0	0.0	0.0	0.6	0.8	2.3
1974	1.3	1.1	2.4	0.9	1.0	0.9	3.6	6.4	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.3
1975	1.5	1.2	2.6	0.9	1.0	0.9	3.8	6.6	0.2	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1976	1.4	1.1	2.5	0.9	1.0	0.9	3.6	6.4	0.1	0.5	0.0	0.0	0.0	0.6	0.8	2.4
1977	1.3	1.1	2.5	0.9	0.9	0.9	3.7	6.4	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.1
1978	1.3	1.2	2.4	0.9	0.9	0.9	3.7	6.4	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1979	1.2	1.1	2.3	0.9	1.0	0.9	3.7	6.6	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1980	1.4	1.2	2.6	0.9	1.0	1.0	3.8	6.7	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1981	1.3	1.2	2.5	0.9	1.0	1.0	3.8	6.7	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.3
1982	1.2	1.3	2.5	0.9	1.0	1.0	3.7	6.6	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.3
1983	1.4	1.3	2.7	0.9	1.0	0.9	3.6	6.4	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.4
1984	1.2	1.3	2.5	0.9	1.0	1.0	3.5	6.4	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.6
1985	1.1	1.3	2.5	0.9	1.0	0.8	3.6	6.3	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.5
1986	1.3	1.3	2.6	0.9	0.9	0.8	3.4	6.0	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.6
1987	1.2	1.4	2.6	0.8	0.9	0.8	3.3	5.8	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.6
1988	1.3	1.4	2.7	0.8	0.9	0.7	3.4	5.9	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.5
1989	1.2	1.5	2.6	0.9	0.9	0.8	3.5	6.1	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.7
1990	1.0	1.4	2.4	0.8	0.9	0.9	3.5	6.1	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.7
1991	1.0	1.3	2.3	0.9	0.9	0.9	3.4	6.1	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.8
1992	1.1	1.4	2.5	0.9	0.9	0.8	3.5	6.1	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.8
1993	1.3	1.4	2.7	0.9	0.9	0.9	3.6	6.2	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.7
1994	1.2	1.3	2.5	0.9	0.9	0.9	3.5	6.2	0.1	0.3	0.0	0.0	0.0	0.5	0.8	2.7
1995	1.2	1.3	2.5	0.9	1.0	0.9	3.5	6.3	0.1	0.3	0.0	0.0	0.0	0.5	0.8	2.6
1996	1.2	1.3	2.6	0.9	1.1	0.9	3.6	6.4	0.1	0.3	0.0	0.0	0.0	0.5	0.7	2.9
1997	1.3	1.3	2.6	0.9	1.1	0.9	3.6	6.4	0.1	0.3	0.0	0.0	0.0	0.4	0.8	2.9

Table 25. Phosphorus contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
	Percent											
1909-19	17.4	1.7	2.2	21.3	17.2	5.0	1.8	2.9	26.9	5.0	4.5	28.5
1920-29	16.8	1.7	2.4	20.8	19.1	4.4	2.0	4.5	29.9	5.3	4.4	24.8
1930-39	15.9	1.8	2.3	20.0	19.8	4.0	2.3	6.5	32.6	5.1	5.1	22.1
1940-49	17.1	2.2	1.9	21.2	22.0	3.1	2.6	8.3	36.0	5.4	5.1	18.2
1950-59	17.9	2.7	2.2	22.8	22.3	2.4	3.6	9.9	38.1	6.2	5.0	14.9
1960-69	18.8	3.9	2.1	24.8	19.7	3.8	4.5	9.6	37.6	5.4	5.2	14.2
1970	19.3	4.6	2.2	26.1	17.1	5.4	5.0	9.6	37.0	5.2	5.2	13.5
1971	19.7	4.6	2.1	26.4	16.7	5.6	5.3	9.5	37.0	5.2	5.1	13.3
1972	19.1	4.8	2.3	26.2	16.1	5.9	5.7	9.0	36.7	5.1	5.6	13.2
1973	17.8	4.6	2.4	24.8	15.5	6.4	5.9	9.5	37.4	4.9	6.1	13.6
1974	18.8	4.6	2.2	25.6	14.5	6.2	6.2	8.6	35.4	4.7	5.6	15.9
1975	17.2	4.6	2.2	24.0	14.5	5.7	6.3	8.3	34.8	4.7	6.4	16.9
1976	17.4	4.8	2.3	24.5	13.5	6.9	6.6	8.3	35.2	4.4	6.1	16.6
1977	17.4	4.8	2.2	24.5	12.9	7.3	6.8	8.1	35.0	4.4	6.2	17.2
1978	17.0	5.0	2.4	24.4	12.5	7.2	7.2	8.2	35.2	4.5	6.1	17.1
1979	16.6	5.3	2.3	24.1	11.9	7.4	7.2	8.4	35.0	4.6	6.2	17.4
1980	17.0	5.4	2.2	24.7	11.4	7.7	7.4	8.3	34.7	4.5	5.7	17.5
1981	16.9	5.6	2.3	24.8	10.9	7.9	7.6	7.8	34.2	4.4	6.1	17.6
1982	16.1	5.6	2.2	23.9	10.4	7.9	8.3	7.8	34.4	4.4	6.5	17.7
1983	16.5	5.5	2.2	24.3	10.0	8.0	8.5	8.0	34.4	4.3	6.5	17.5
1984	16.3	5.6	2.4	24.2	9.6	8.2	8.7	8.3	34.8	4.2	6.1	17.5
1985	16.0	5.6	2.4	24.0	9.1	8.4	8.9	8.2	34.6	4.0	6.5	17.8
1986	15.9	5.7	2.4	24.0	8.4	8.7	8.9	8.5	34.6	4.0	6.3	18.2
1987	15.5	6.1	2.4	24.0	8.0	8.8	9.2	8.3	34.5	3.9	5.8	19.1
1988	15.5	6.1	2.3	24.0	7.5	8.9	9.0	8.0	33.4	3.8	6.3	20.1
1989	15.3	6.4	2.4	24.1	7.0	9.7	8.9	7.7	33.2	3.6	6.0	20.2
1990	14.6	6.5	2.3	23.5	6.4	9.9	9.1	8.3	33.6	3.5	6.0	20.6
1991	14.4	6.7	2.3	23.5	6.1	10.0	9.1	7.9	33.1	3.5	6.1	20.8
1992	14.5	6.9	2.2	23.6	5.8	9.9	9.3	8.1	33.0	3.5	6.1	20.9
1993	14.2	7.1	2.2	23.5	5.5	9.8	9.3	8.0	32.6	3.5	5.9	21.5
1994	14.3	7.0	2.2	23.6	5.3	9.7	9.3	8.8	33.1	3.5	5.9	21.3
1995	14.7	7.1	2.2	24.0	5.2	9.9	9.6	8.0	32.6	3.5	5.9	21.4
1996	14.2	7.2	2.2	23.5	5.1	9.8	9.6	8.1	32.5	3.5	5.7	21.6
1997	14.0	7.3	2.2	23.5	4.9	9.7	9.7	8.1	32.4	3.5	5.9	21.7

Table 25. Phosphorus contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.2	1.4	1.5	5.5	0.8	0.9	3.3	10.4	0.3	0.0	0.0	0.0	0.0	0.4	0.4	1.4
1920-29	0.2	1.5	1.7	4.7	0.9	0.8	3.7	10.2	0.3	0.0	0.0	0.0	0.0	0.4	0.4	2.0
1930-39	0.3	1.4	1.7	4.2	1.1	0.9	3.9	10.1	0.4	0.0	0.0	0.0	0.0	0.4	0.4	2.4
1940-49	0.5	1.2	1.7	3.5	1.0	1.0	3.7	9.2	0.2	0.1	0.0	0.0	0.0	0.3	0.3	2.5
1950-59	0.5	1.1	1.7	3.2	0.8	1.0	3.3	8.3	0.2	0.2	0.0	0.0	0.0	0.3	0.3	2.4
1960-69	0.5	1.0	1.6	3.2	0.7	0.9	3.1	7.8	0.1	0.2	0.0	0.0	0.0	0.3	0.3	2.8
1970	0.6	1.0	1.6	3.2	0.6	1.0	3.1	7.8	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1971	0.7	1.0	1.7	3.0	0.6	1.0	3.1	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1972	0.7	0.9	1.6	3.0	0.6	1.0	3.0	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.3
1973	0.7	1.0	1.7	3.0	0.6	1.0	3.1	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.2
1974	0.7	1.0	1.7	2.9	0.6	1.0	3.1	7.5	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1975	0.8	1.0	1.8	3.1	0.6	1.0	3.2	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.8
1976	0.8	1.0	1.8	3.0	0.6	1.1	3.1	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1977	0.8	1.0	1.8	2.9	0.6	1.0	3.1	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.7
1978	0.7	1.0	1.7	2.9	0.6	1.0	3.1	7.5	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.7
1979	0.7	1.0	1.7	2.9	0.6	1.0	3.1	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.7
1980	0.8	1.1	1.8	2.9	0.6	1.0	3.1	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.3	2.7
1981	0.7	1.1	1.8	2.8	0.6	1.0	3.1	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.3	2.9
1982	0.7	1.1	1.9	2.8	0.7	1.0	3.1	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.3	2.9
1983	0.8	1.1	1.9	2.9	0.6	1.0	3.0	7.5	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.1
1984	0.7	1.2	1.9	2.9	0.7	1.1	3.0	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.2
1985	0.7	1.1	1.8	2.7	0.6	1.0	2.9	7.3	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.3
1986	0.8	1.1	1.9	2.8	0.6	1.0	2.9	7.2	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.3
1987	0.7	1.2	1.9	2.7	0.6	1.0	2.7	6.9	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.3
1988	0.7	1.2	1.9	2.6	0.6	0.9	2.7	6.9	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.2
1989	0.6	1.2	1.8	2.7	0.6	1.0	2.7	7.1	0.1	0.2	0.0	0.0	0.0	0.2	0.3	3.4
1990	0.5	1.1	1.7	2.6	0.6	1.0	2.8	7.0	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.6
1991	0.6	1.1	1.7	2.6	0.6	1.0	2.7	7.0	0.1	0.2	0.0	0.0	0.0	0.2	0.3	3.7
1992	0.6	1.1	1.8	2.6	0.7	1.0	2.7	7.0	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.6
1993	0.8	1.1	1.9	2.7	0.6	1.0	2.7	7.1	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.4
1994	0.7	1.1	1.8	2.7	0.7	1.0	2.7	7.1	0.1	0.2	0.0	0.0	0.0	0.2	0.3	3.2
1995	0.8	1.1	1.8	2.7	0.7	1.0	2.7	7.2	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.0
1996	0.7	1.1	1.9	2.8	0.7	1.0	2.7	7.2	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.5
1997	0.8	1.1	1.9	2.7	0.8	1.0	2.7	7.2	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.4

Table 26. Magnesium contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	6.6	0.8	1.2	8.7	9.5	2.2	0.4	1.2	13.2	1.1	9.8	36.0
1920-29	6.5	0.8	1.3	8.6	10.7	1.9	0.4	2.1	15.2	1.2	9.7	30.7
1930-39	6.2	0.9	1.1	8.2	11.1	1.8	0.5	3.0	16.4	1.1	11.0	26.9
1940-49	7.0	1.1	1.0	9.2	13.1	1.4	0.6	4.1	19.2	1.3	11.6	22.2
1950-59	7.8	1.5	1.4	10.7	14.1	1.2	0.8	5.1	21.3	1.5	11.7	18.9
1960-69	8.4	2.2	1.4	12.0	12.6	2.3	1.1	5.2	21.1	1.4	12.1	17.9
1970	8.7	2.7	1.4	12.8	11.0	3.3	1.2	5.4	21.0	1.3	12.0	17.0
1971	8.9	2.7	1.4	13.0	10.8	3.5	1.3	5.4	21.0	1.3	12.0	16.8
1972	8.6	2.8	1.5	12.9	10.4	3.7	1.4	5.2	20.6	1.3	12.5	16.4
1973	8.0	2.6	1.6	12.1	9.8	3.9	1.4	5.4	20.6	1.2	13.7	16.8
1974	8.5	2.7	1.5	12.6	9.3	3.9	1.5	5.1	19.7	1.2	12.5	19.1
1975	7.7	2.6	1.5	11.8	9.1	3.5	1.5	4.9	18.9	1.2	14.1	19.4
1976	7.9	2.7	1.5	12.1	8.5	4.2	1.6	4.9	19.2	1.1	13.5	19.1
1977	7.9	2.8	1.5	12.2	8.2	4.5	1.6	4.9	19.3	1.1	13.8	20.6
1978	7.7	2.9	1.7	12.3	8.0	4.5	1.7	5.0	19.2	1.1	13.3	20.5
1979	7.4	3.0	1.6	12.0	7.6	4.5	1.7	5.1	18.9	1.1	13.8	20.6
1980	7.7	3.1	1.5	12.3	7.3	4.8	1.8	5.1	19.0	1.1	12.7	20.9
1981	7.6	3.2	1.5	12.3	6.9	4.9	1.8	4.8	18.5	1.1	13.3	20.9
1982	7.2	3.2	1.5	11.9	6.6	4.8	2.0	4.8	18.2	1.1	14.3	20.8
1983	7.4	3.2	1.5	12.1	6.3	4.9	2.0	5.0	18.1	1.1	14.2	20.7
1984	7.3	3.2	1.6	12.1	6.1	5.0	2.1	5.2	18.3	1.0	13.2	21.0
1985	7.1	3.2	1.6	11.9	5.7	5.1	2.1	5.1	18.0	1.0	14.3	21.3
1986	7.1	3.3	1.6	12.0	5.3	5.3	2.1	5.3	17.9	1.0	13.5	21.9
1987	6.9	3.5	1.7	12.1	5.1	5.4	2.2	5.2	17.8	1.0	12.4	23.7
1988	6.9	3.5	1.6	11.9	4.7	5.3	2.1	4.9	17.0	0.9	13.6	24.6
1989	6.7	3.6	1.6	12.0	4.3	5.8	2.1	4.7	16.8	0.9	12.9	24.7
1990	6.5	3.7	1.6	11.7	3.9	5.8	2.1	5.1	16.9	0.9	12.8	25.1
1991	6.3	3.8	1.5	11.6	3.7	5.9	2.1	4.8	16.5	0.8	13.1	25.2
1992	6.3	3.9	1.5	11.7	3.5	5.8	2.1	4.9	16.4	0.8	13.1	25.4
1993	6.2	4.0	1.5	11.7	3.4	5.8	2.1	4.9	16.2	0.8	12.8	26.0
1994	6.3	4.0	1.5	11.8	3.3	5.8	2.2	5.3	16.5	0.8	12.9	26.2
1995	6.5	4.1	1.5	12.1	3.2	5.9	2.2	4.9	16.2	0.8	12.9	26.5
1996	6.2	4.1	1.5	11.8	3.1	5.7	2.2	4.9	16.0	0.8	12.4	26.3
1997	6.2	4.2	1.5	11.8	3.0	5.7	2.2	4.9	15.8	0.8	12.8	26.3

Table 26. Magnesium contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.4	4.1	4.5	9.5	1.3	1.6	5.8	18.2	0.1	0.0	0.0	0.0	0.0	0.1	2.0	6.7
1920-29	0.6	4.6	5.2	8.5	2.0	1.5	6.6	18.6	0.1	0.0	0.0	0.0	0.0	0.1	1.5	9.1
1930-39	1.0	4.5	5.4	7.6	2.4	1.7	7.0	18.6	0.1	0.0	0.0	0.0	0.0	0.1	1.4	10.7
1940-49	1.5	3.8	5.3	6.7	2.3	2.0	6.8	17.8	0.1	0.0	0.0	0.0	0.0	0.1	1.3	12.1
1950-59	1.7	4.2	5.8	6.5	1.9	2.1	6.4	16.9	0.1	0.1	0.0	0.0	0.0	0.1	0.8	12.1
1960-69	1.7	3.9	5.6	6.3	1.6	1.9	6.0	15.9	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.1
1970	2.0	3.9	5.9	6.2	1.3	2.3	6.3	16.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.0
1971	2.1	3.9	6.0	5.9	1.3	2.4	6.3	16.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.9
1972	2.2	3.6	5.8	5.9	1.3	2.3	6.1	15.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.8
1973	2.2	3.6	5.8	5.7	1.4	2.2	6.3	15.5	0.0	0.1	0.0	0.0	0.0	0.1	0.9	13.2
1974	2.3	3.6	5.9	5.6	1.4	2.2	6.2	15.4	0.0	0.1	0.0	0.0	0.0	0.1	0.9	12.6
1975	2.5	3.8	6.2	5.9	1.4	2.3	6.3	15.9	0.0	0.1	0.0	0.0	0.0	0.1	0.9	11.5
1976	2.4	3.7	6.1	5.7	1.3	2.3	6.2	15.5	0.0	0.1	0.0	0.0	0.0	0.1	0.9	12.3
1977	2.4	3.8	6.3	5.6	1.3	2.3	6.2	15.4	0.0	0.1	0.0	0.0	0.0	0.1	0.9	10.4
1978	2.3	3.9	6.2	5.5	1.3	2.2	6.2	15.2	0.0	0.1	0.0	0.0	0.0	0.1	0.9	11.1
1979	2.2	3.9	6.2	5.5	1.4	2.3	6.1	15.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.2
1980	2.4	4.0	6.5	5.6	1.3	2.4	6.2	15.5	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.1
1981	2.3	4.1	6.4	5.4	1.4	2.2	6.1	15.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.4
1982	2.2	4.2	6.5	5.4	1.4	2.2	6.0	15.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.3
1983	2.5	4.1	6.6	5.5	1.3	2.2	5.7	14.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.7
1984	2.1	4.3	6.4	5.4	1.4	2.4	5.7	14.9	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.2
1985	2.1	4.2	6.3	5.2	1.3	2.1	5.5	14.1	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.3
1986	2.2	4.3	6.5	5.2	1.3	2.1	5.3	14.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.3
1987	2.1	4.5	6.6	5.0	1.2	2.1	4.9	13.3	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.2
1988	2.1	4.2	6.4	4.9	1.2	2.0	4.9	13.1	0.0	0.1	0.0	0.0	0.0	0.1	0.7	11.6
1989	1.9	4.3	6.3	5.0	1.3	2.2	4.9	13.4	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.2
1990	1.6	4.1	5.7	4.8	1.2	2.3	4.9	13.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.7
1991	1.8	4.0	5.8	4.8	1.2	2.2	4.8	13.1	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.0
1992	1.8	4.2	6.0	4.9	1.3	2.1	4.8	13.1	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.7
1993	2.1	4.2	6.3	5.0	1.2	2.2	4.8	13.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.0
1994	2.0	4.2	6.2	5.1	1.3	2.2	4.9	13.5	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.0
1995	2.2	4.1	6.3	5.1	1.3	2.2	4.9	13.6	0.0	0.1	0.0	0.0	0.0	0.1	0.8	10.7
1996	2.1	4.2	6.3	5.1	1.4	2.2	4.8	13.5	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.0
1997	2.2	4.2	6.3	5.0	1.5	2.2	4.8	13.5	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.8

Table 27. Iron contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	16.1	1.6	1.9	19.7	1.0	0.2	0.2	0.2	1.7	4.2	12.8	33.1
1920-29	15.7	1.7	1.9	19.3	1.1	0.2	0.3	0.4	2.0	4.7	12.3	29.0
1930-39	15.1	1.8	1.6	18.5	1.2	0.2	0.3	0.5	2.2	4.6	14.1	26.2
1940-49	15.5	2.1	1.4	18.9	1.2	0.1	0.4	0.6	2.4	4.6	12.2	31.7
1950-59	16.4	2.7	1.5	20.5	1.3	0.1	0.5	0.6	2.6	5.1	10.9	34.3
1960-69	17.5	3.5	1.4	22.4	1.1	0.2	0.6	0.6	2.6	4.4	10.1	35.3
1970	17.9	3.7	1.6	23.2	1.0	0.3	0.6	0.6	2.5	4.0	9.4	35.2
1971	17.9	3.6	1.5	23.0	1.0	0.3	0.7	0.6	2.5	4.0	9.3	35.8
1972	17.5	3.8	1.6	22.9	0.9	0.3	0.7	0.5	2.5	3.9	9.3	35.9
1973	16.2	3.5	1.7	21.4	0.9	0.3	0.7	0.5	2.5	3.7	10.4	37.0
1974	16.3	3.3	1.5	21.2	0.8	0.3	0.7	0.5	2.3	3.4	8.5	41.4
1975	15.0	3.2	1.5	19.7	0.8	0.3	0.7	0.5	2.2	3.3	9.7	42.3
1976	15.5	3.4	1.4	20.2	0.7	0.4	0.7	0.5	2.3	3.1	9.2	42.2
1977	15.4	3.4	1.5	20.3	0.7	0.4	0.7	0.5	2.3	3.1	9.4	42.4
1978	15.1	3.5	1.5	20.2	0.7	0.4	0.8	0.5	2.3	3.3	8.8	42.7
1979	13.9	3.6	1.4	18.9	0.6	0.4	0.8	0.5	2.3	3.2	9.4	43.8
1980	14.1	3.7	1.3	19.2	0.6	0.4	0.8	0.5	2.3	3.2	8.5	44.2
1981	14.0	3.7	1.6	19.3	0.6	0.4	0.8	0.5	2.3	3.1	8.7	44.1
1982	13.4	3.6	1.4	18.5	0.5	0.4	0.9	0.5	2.3	3.1	9.5	44.2
1983	12.2	3.2	1.3	16.7	0.4	0.4	0.8	0.4	2.0	2.6	8.4	50.3
1984	12.1	3.2	1.4	16.7	0.4	0.4	0.8	0.4	2.1	2.6	7.4	50.4
1985	11.7	3.1	1.6	16.3	0.4	0.4	0.8	0.4	2.1	2.5	8.5	50.6
1986	11.6	3.2	1.3	16.1	0.4	0.4	0.8	0.5	2.1	2.4	8.1	51.4
1987	11.1	3.4	1.5	16.0	0.4	0.4	0.8	0.4	2.1	2.4	6.9	53.2
1988	10.7	3.3	1.4	15.5	0.3	0.4	0.8	0.4	2.0	2.3	7.9	53.8
1989	10.5	3.4	1.4	15.4	0.3	0.4	0.8	0.4	1.9	2.2	7.2	54.0
1990	10.0	3.5	1.3	14.8	0.3	0.4	0.8	0.4	1.9	2.1	7.3	54.7
1991	9.7	3.5	1.4	14.6	0.3	0.4	0.8	0.4	1.9	2.0	7.6	54.8
1992	9.6	3.6	1.3	14.5	0.2	0.4	0.8	0.4	1.9	2.0	7.7	54.8
1993	9.3	3.6	1.3	14.2	0.2	0.4	0.8	0.4	1.9	2.0	7.4	55.6
1994	9.5	3.6	1.3	14.3	0.2	0.4	0.8	0.4	1.9	2.0	7.6	55.5
1995	9.7	3.6	1.3	14.7	0.2	0.4	0.8	0.4	1.8	2.0	7.5	55.6
1996	9.5	3.6	1.3	14.4	0.2	0.4	0.8	0.4	1.8	2.0	7.2	55.5
1997	9.3	3.7	1.2	14.2	0.2	0.4	0.8	0.4	1.8	2.0	7.5	55.7

Table 27. Iron contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
								Percent								
1909-19	0.2	3.2	3.3	9.5	1.7	1.9	5.4	18.4	0.2	0.0	0.0	0.0	0.0	0.3	3.1	4.2
1920-29	0.3	3.7	4.0	8.6	2.5	1.8	6.9	19.9	0.3	0.0	0.0	0.0	0.0	0.3	2.7	5.9
1930-39	0.4	3.6	4.0	7.8	2.9	2.1	7.5	20.3	0.3	0.0	0.0	0.0	0.0	0.3	2.5	7.3
1940-49	0.7	3.0	3.6	6.2	2.5	2.2	6.7	17.5	0.2	0.0	0.0	0.0	0.0	0.2	2.2	6.7
1950-59	0.7	2.9	3.5	5.4	1.8	2.1	6.0	15.3	0.1	0.0	0.0	0.0	0.0	0.2	1.3	6.2
1960-69	0.6	2.6	3.1	5.0	1.5	1.8	5.5	13.8	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.9
1970	0.6	2.5	3.1	4.9	1.2	2.2	5.6	13.9	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.2
1971	0.7	2.5	3.1	4.7	1.2	2.3	5.5	13.6	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.2
1972	0.7	2.2	2.9	4.7	1.2	2.2	5.3	13.5	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.7
1973	0.7	2.2	2.9	4.6	1.2	2.0	5.4	13.3	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.4
1974	0.6	2.1	2.8	4.3	1.2	2.0	5.1	12.5	0.1	0.0	0.0	0.0	0.0	0.1	1.2	6.6
1975	0.7	2.2	2.9	4.5	1.1	2.0	5.1	12.7	0.1	0.0	0.0	0.0	0.0	0.1	1.2	5.9
1976	0.7	2.1	2.8	4.4	1.1	2.0	5.0	12.5	0.0	0.0	0.0	0.0	0.0	0.1	1.2	6.5
1977	0.7	2.2	2.9	4.4	1.0	1.9	5.0	12.4	0.0	0.0	0.0	0.0	0.0	0.1	1.2	5.8
1978	0.7	2.2	2.9	4.4	1.1	1.9	5.1	12.4	0.1	0.0	0.0	0.0	0.0	0.1	1.2	6.1
1979	0.6	2.2	2.8	4.3	1.1	2.0	4.9	12.3	0.1	0.0	0.0	0.0	0.0	0.1	1.2	6.0
1980	0.7	2.3	3.0	4.3	1.1	2.0	5.0	12.3	0.1	0.0	0.0	0.0	0.0	0.1	1.1	6.1
1981	0.7	2.3	2.9	4.2	1.1	1.9	4.9	12.1	0.0	0.0	0.0	0.0	0.0	0.1	1.1	6.3
1982	0.6	2.4	3.0	4.1	1.1	1.9	4.7	11.9	0.0	0.0	0.0	0.0	0.0	0.1	1.1	6.3
1983	0.6	2.1	2.7	3.7	0.9	1.6	4.0	10.3	0.0	0.0	0.0	0.0	0.0	0.1	1.0	5.9
1984	0.5	2.2	2.7	3.8	1.0	1.8	4.0	10.6	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.3
1985	0.5	2.1	2.6	3.6	1.0	1.6	4.0	10.1	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.2
1986	0.5	2.1	2.6	3.7	0.9	1.6	3.8	10.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.3
1987	0.5	2.3	2.7	3.6	0.8	1.5	3.6	9.5	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.2
1988	0.5	2.2	2.6	3.4	0.8	1.4	3.5	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.9	5.8
1989	0.4	2.2	2.6	3.5	0.9	1.6	3.6	9.5	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.3
1990	0.4	2.0	2.4	3.4	0.8	1.6	3.5	9.3	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.5
1991	0.4	1.9	2.3	3.4	0.8	1.6	3.4	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.6
1992	0.4	2.0	2.4	3.4	0.9	1.5	3.4	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.5
1993	0.5	2.0	2.5	3.5	0.8	1.5	3.4	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.2
1994	0.4	2.0	2.4	3.5	0.9	1.5	3.4	9.4	0.0	0.0	0.0	0.0	0.0	0.1	0.9	5.9
1995	0.5	1.9	2.4	3.5	0.9	1.6	3.4	9.3	0.0	0.0	0.0	0.0	0.0	0.1	1.0	5.6
1996	0.5	1.9	2.4	3.6	0.9	1.5	3.3	9.3	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.3
1997	0.5	1.9	2.4	3.4	1.0	1.5	3.4	9.3	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.2

Table 28. Zinc contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	29.7	1.7	10.4	41.9	7.9	2.2	1.2	1.2	12.5	3.4	5.6	24.1
1920-29	29.6	1.9	8.3	39.7	9.2	2.1	1.4	2.1	14.8	3.9	5.7	21.8
1930-39	29.4	2.0	6.0	37.4	9.9	2.0	1.7	3.2	16.7	3.9	6.8	20.3
1940-49	32.2	2.6	4.7	39.6	11.2	1.5	1.9	4.2	18.9	4.2	6.6	16.7
1950-59	34.5	3.6	4.1	42.2	11.4	1.2	2.6	5.0	20.2	4.8	6.2	13.8
1960-69	37.2	5.0	2.8	45.0	9.8	1.9	3.2	4.8	19.7	4.1	6.1	12.8
1970	38.5	5.6	2.7	46.8	8.4	2.6	3.6	4.6	19.2	3.8	5.9	11.9
1971	38.8	5.6	2.6	47.0	8.2	2.7	3.8	4.5	19.2	3.8	5.8	11.8
1972	38.3	5.8	2.8	46.9	7.9	2.9	4.1	4.2	19.1	3.8	5.9	11.7
1973	36.5	5.7	2.8	45.0	7.7	3.2	4.3	4.6	19.8	3.7	6.6	12.3
1974	34.7	5.1	2.5	42.3	6.5	2.8	4.1	3.6	17.0	3.2	5.2	21.4
1975	33.9	5.0	2.5	41.4	6.4	2.5	4.1	3.4	16.5	3.2	5.9	22.0
1976	34.5	5.3	2.4	42.2	6.0	3.1	4.3	3.4	16.7	3.0	5.5	21.6
1977	34.1	5.3	2.4	41.8	5.7	3.2	4.4	3.3	16.7	3.0	5.4	22.3
1978	33.3	5.5	2.5	41.3	5.6	3.2	4.7	3.4	16.9	3.1	5.3	22.6
1979	31.4	5.8	2.5	39.7	5.4	3.3	4.8	3.4	16.9	3.1	5.6	23.8
1980	31.7	6.0	2.5	40.2	5.1	3.4	4.9	3.3	16.8	3.1	5.0	24.1
1981	31.5	6.1	2.5	40.2	4.9	3.5	5.0	3.0	16.5	3.0	5.3	24.1
1982	30.6	6.1	2.5	39.1	4.6	3.5	5.5	3.0	16.7	3.0	5.8	24.4
1983	31.0	6.0	2.5	39.5	4.4	3.5	5.6	3.1	16.7	2.9	5.7	24.2
1984	30.8	6.1	2.4	39.3	4.3	3.7	5.8	3.3	17.0	2.9	5.3	24.4
1985	30.2	6.1	2.5	38.8	4.1	3.8	5.9	3.2	16.9	2.7	5.9	24.6
1986	30.1	6.3	2.4	38.7	3.8	3.9	5.9	3.3	16.9	2.7	5.6	25.0
1987	29.2	6.8	1.7	37.8	3.7	4.0	6.2	3.3	17.2	2.7	5.1	26.2
1988	28.8	6.8	1.6	37.3	3.4	4.0	6.0	3.2	16.6	2.6	5.7	27.1
1989	28.1	7.1	1.6	36.9	3.1	4.3	5.9	3.1	16.5	2.5	5.4	27.7
1990	26.8	7.2	2.1	36.1	2.8	4.4	6.0	3.3	16.6	2.4	5.3	28.5
1991	26.0	7.4	2.2	35.5	2.7	4.4	6.0	3.1	16.3	2.4	5.5	29.3
1992	25.7	7.5	2.2	35.4	2.6	4.4	6.1	3.2	16.1	2.3	5.5	29.6
1993	25.3	7.7	2.2	35.2	2.5	4.4	6.1	3.1	16.1	2.4	5.4	30.0
1994	25.5	7.6	2.1	35.3	2.4	4.3	6.1	3.5	16.3	2.3	5.4	29.9
1995	26.0	7.7	2.1	35.9	2.3	4.4	6.3	3.2	16.1	2.3	5.3	29.9
1996	25.6	7.8	2.1	35.5	2.2	4.3	6.3	3.2	16.2	2.3	5.2	29.7
1997	25.5	8.0	1.5	35.1	2.2	4.3	6.4	3.2	16.2	2.4	5.4	29.9

Table 28. Zinc contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.1	1.1	1.2	5.2	0.7	0.4	2.8	9.1	0.1	0.0	0.0	0.1	0.0	0.2	0.7	1.4
1920-29	0.1	1.2	1.4	4.8	0.9	0.4	3.4	9.5	0.1	0.0	0.0	0.1	0.0	0.2	0.7	2.2
1930-39	0.2	1.3	1.5	4.4	1.1	0.5	3.8	9.8	0.1	0.0	0.0	0.1	0.0	0.2	0.7	2.8
1940-49	0.4	1.1	1.5	3.8	1.0	0.6	3.6	9.0	0.1	0.0	0.0	0.1	0.0	0.2	0.5	2.9
1950-59	0.3	1.1	1.4	3.4	0.7	0.6	3.3	8.1	0.0	0.0	0.0	0.1	0.0	0.2	0.5	2.6
1960-69	0.3	1.0	1.3	3.2	0.6	0.6	3.0	7.4	0.0	0.0	0.0	0.1	0.0	0.1	0.5	2.9
1970	0.3	0.9	1.3	3.1	0.5	0.7	3.0	7.3	0.0	0.0	0.0	0.1	0.0	0.1	0.5	3.2
1971	0.4	0.9	1.3	2.9	0.5	0.8	3.0	7.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.2
1972	0.4	0.9	1.2	3.0	0.5	0.7	3.0	7.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.5
1973	0.4	0.9	1.3	2.9	0.6	0.7	3.1	7.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.4
1974	0.3	0.8	1.1	2.6	0.5	0.6	2.7	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.9
1975	0.4	0.8	1.2	2.7	0.5	0.7	2.8	6.7	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.6
1976	0.4	0.8	1.2	2.6	0.5	0.7	2.7	6.5	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.9
1977	0.4	0.8	1.2	2.6	0.5	0.6	2.8	6.5	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.6
1978	0.3	0.9	1.2	2.6	0.5	0.6	2.8	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.7
1979	0.3	0.9	1.2	2.6	0.5	0.7	2.8	6.5	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.6
1980	0.4	0.9	1.2	2.6	0.5	0.7	2.8	6.5	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.7
1981	0.3	0.9	1.2	2.5	0.5	0.6	2.7	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.8
1982	0.3	0.9	1.2	2.5	0.5	0.6	2.7	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.8
1983	0.4	0.9	1.2	2.6	0.5	0.6	2.6	6.3	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.0
1984	0.3	0.9	1.2	2.6	0.5	0.7	2.6	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.1
1985	0.3	0.9	1.2	2.5	0.5	0.6	2.6	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.2
1986	0.3	0.9	1.2	2.5	0.5	0.6	2.5	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.2
1987	0.3	1.0	1.3	2.4	0.5	0.6	2.4	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.3
1988	0.3	0.9	1.2	2.4	0.5	0.6	2.4	5.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.1
1989	0.3	1.0	1.2	2.4	0.5	0.7	2.4	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.3
1990	0.2	0.9	1.1	2.3	0.5	0.7	2.4	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.5
1991	0.3	0.9	1.1	2.3	0.5	0.7	2.4	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.6
1992	0.3	0.9	1.2	2.3	0.5	0.7	2.4	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.5
1993	0.3	0.9	1.2	2.4	0.5	0.7	2.3	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.4
1994	0.3	0.9	1.2	2.4	0.5	0.7	2.3	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.1
1995	0.3	0.8	1.2	2.4	0.5	0.7	2.3	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.0
1996	0.3	0.9	1.2	2.5	0.5	0.7	2.3	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.5
1997	0.3	0.9	1.2	2.4	0.6	0.7	2.4	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.4

Table 29. Copper contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	11.4	0.5	3.9	15.8	1.4	0.4	0.1	0.1	1.9	0.2	10.5	27.6
1920-29	11.1	0.6	3.2	14.9	1.6	0.3	0.1	0.2	2.2	0.2	10.7	25.0
1930-39	10.6	0.6	2.3	13.6	1.7	0.3	0.1	0.3	2.4	0.2	12.7	22.5
1940-49	12.6	0.8	2.0	15.5	2.0	0.3	0.1	0.4	2.8	0.3	13.9	19.9
1950-59	13.7	1.2	2.1	16.9	2.2	0.3	0.2	0.5	3.2	0.3	15.3	17.7
1960-69	14.4	1.7	1.8	17.9	2.1	0.4	0.3	0.5	3.3	0.3	16.2	17.1
1970	15.0	2.0	1.8	18.7	1.9	0.6	0.3	0.5	3.3	0.3	16.0	16.5
1971	15.3	2.0	1.8	19.0	1.9	0.6	0.3	0.5	3.3	0.3	16.1	16.4
1972	14.3	2.0	1.8	18.1	1.8	0.6	0.4	0.5	3.3	0.3	18.1	15.7
1973	13.2	1.9	1.7	16.8	1.8	0.6	0.4	0.5	3.3	0.2	19.9	16.1
1974	13.9	1.9	1.8	17.6	1.6	0.6	0.4	0.5	3.1	0.2	18.7	19.2
1975	12.4	1.8	1.7	15.8	1.6	0.6	0.4	0.5	2.9	0.2	20.7	19.5
1976	12.6	1.9	1.6	16.1	1.5	0.7	0.4	0.5	3.0	0.2	20.4	19.4
1977	12.6	1.9	1.7	16.1	1.4	0.8	0.4	0.5	3.1	0.2	21.1	19.9
1978	12.2	1.9	1.7	15.9	1.4	0.8	0.4	0.5	3.1	0.2	21.1	20.0
1979	11.8	2.0	1.6	15.4	1.3	0.8	0.4	0.5	3.0	0.2	21.3	20.3
1980	12.0	2.0	1.6	15.7	1.2	0.8	0.4	0.5	3.0	0.2	20.1	20.6
1981	11.8	2.1	1.7	15.6	1.1	0.8	0.4	0.5	2.9	0.2	20.7	20.6
1982	11.0	2.0	1.6	14.6	1.1	0.8	0.4	0.5	2.8	0.2	21.7	20.6
1983	11.3	2.0	1.6	14.9	1.0	0.8	0.4	0.5	2.8	0.2	21.5	20.2
1984	11.3	2.0	1.7	14.9	1.0	0.9	0.5	0.5	2.9	0.2	20.5	20.2
1985	10.8	1.9	1.8	14.5	1.0	0.9	0.5	0.6	2.8	0.2	21.5	20.5
1986	10.7	2.0	1.7	14.4	0.9	0.9	0.5	0.6	2.8	0.2	20.7	21.0
1987	10.6	2.2	1.5	14.3	0.9	0.9	0.5	0.6	2.8	0.2	19.6	22.4
1988	10.2	2.2	1.4	13.8	0.8	0.9	0.5	0.6	2.7	0.2	20.7	22.9
1989	10.3	2.2	1.4	13.9	0.7	1.0	0.4	0.5	2.7	0.2	19.8	22.9
1990	9.9	2.3	1.6	13.7	0.7	1.0	0.4	0.5	2.7	0.2	19.6	23.4
1991	9.2	2.3	1.6	13.2	0.6	1.0	0.4	0.5	2.6	0.2	19.8	23.5
1992	9.3	2.3	1.6	13.2	0.6	1.0	0.4	0.5	2.6	0.2	19.7	23.8
1993	9.1	2.3	1.6	13.0	0.6	1.0	0.4	0.5	2.6	0.2	19.5	24.5
1994	9.3	2.3	1.6	13.3	0.6	1.0	0.5	0.6	2.6	0.2	19.6	24.8
1995	9.7	2.4	1.6	13.7	0.6	1.0	0.5	0.6	2.6	0.2	19.5	24.9
1996	9.3	2.4	1.6	13.3	0.5	1.0	0.5	0.5	2.6	0.2	18.9	24.8
1997	9.2	2.4	1.4	13.0	0.5	1.0	0.5	0.5	2.6	0.2	19.4	24.9

Table 29. Copper contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
	Percent															
1909-19	0.3	4.9	5.2	21.9	2.4	2.2	3.7	30.2	0.1	0.0	0.0	0.0	0.0	0.1	2.8	5.8
1920-29	0.5	5.6	6.1	19.6	2.7	2.1	4.5	29.0	0.1	0.0	0.0	0.0	0.0	0.1	3.3	8.5
1930-39	0.8	5.5	6.3	18.0	2.9	2.5	5.0	28.4	0.1	0.0	0.0	0.0	0.0	0.1	3.4	10.5
1940-49	1.2	5.0	6.2	16.1	2.5	3.1	5.1	26.9	0.1	0.0	0.0	0.0	0.0	0.1	3.1	11.5
1950-59	1.4	5.1	6.5	15.1	1.8	3.5	5.0	25.4	0.1	0.0	0.0	0.0	0.0	0.1	3.5	11.1
1960-69	1.4	4.8	6.2	13.2	1.5	3.4	4.8	22.9	0.1	0.0	0.0	0.0	0.0	0.1	3.8	12.3
1970	1.6	4.7	6.3	12.0	1.4	4.1	5.0	22.6	0.0	0.0	0.0	0.0	0.0	0.0	4.0	12.3
1971	1.7	4.7	6.5	11.2	1.4	4.4	5.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	12.3
1972	1.8	4.2	6.0	11.1	1.4	4.1	4.8	21.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0	13.1
1973	1.8	4.4	6.2	10.6	1.4	3.8	5.0	20.8	0.0	0.0	0.0	0.0	0.0	0.0	4.0	12.6
1974	1.8	4.2	6.0	10.0	1.4	3.9	4.9	20.1	0.0	0.0	0.0	0.0	0.0	0.0	3.8	11.2
1975	1.9	4.5	6.4	10.5	1.4	3.9	4.9	20.7	0.0	0.0	0.0	0.0	0.0	0.0	3.7	10.0
1976	1.9	4.3	6.2	9.8	1.3	4.0	4.8	20.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	11.0
1977	1.9	4.4	6.3	9.9	1.2	3.9	4.9	19.9	0.0	0.0	0.0	0.0	0.0	0.0	3.8	9.7
1978	1.7	4.5	6.2	9.6	1.2	3.8	5.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	3.8	10.2
1979	1.7	4.5	6.2	9.7	1.3	4.0	5.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	3.7	10.0
1980	1.9	4.6	6.5	10.0	1.2	4.0	5.0	20.2	0.0	0.0	0.0	0.0	0.0	0.0	3.6	10.1
1981	1.8	4.7	6.5	9.4	1.2	3.8	4.9	19.4	0.0	0.0	0.0	0.0	0.0	0.0	3.5	10.6
1982	1.7	4.8	6.6	9.4	1.3	3.8	4.8	19.3	0.0	0.0	0.0	0.0	0.0	0.0	3.4	10.7
1983	2.0	4.7	6.6	9.6	1.2	3.8	4.7	19.2	0.0	0.0	0.0	0.0	0.0	0.0	3.4	11.1
1984	1.6	5.0	6.6	9.5	1.2	4.1	4.7	19.6	0.0	0.0	0.0	0.0	0.0	0.0	3.4	11.8
1985	1.6	4.8	6.4	8.9	1.2	3.8	4.7	18.5	0.0	0.0	0.0	0.0	0.0	0.0	3.3	12.2
1986	1.7	4.9	6.7	9.2	1.1	3.8	4.6	18.6	0.0	0.0	0.0	0.0	0.0	0.0	3.2	12.3
1987	1.7	5.2	6.9	8.8	1.0	3.8	4.4	18.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	12.4
1988	1.7	5.0	6.7	8.7	1.0	3.6	4.4	17.7	0.0	0.0	0.0	0.0	0.0	0.0	3.3	11.9
1989	1.5	5.1	6.6	8.8	1.0	3.9	4.3	18.1	0.0	0.0	0.0	0.0	0.0	0.0	3.3	12.4
1990	1.3	4.8	6.1	8.3	1.0	4.1	4.4	17.8	0.0	0.0	0.0	0.0	0.0	0.0	3.3	13.2
1991	1.4	4.6	6.0	8.3	1.0	4.1	4.3	17.7	0.0	0.0	0.0	0.0	0.0	0.0	3.3	13.7
1992	1.4	4.7	6.2	8.4	1.0	3.9	4.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	3.3	13.4
1993	1.7	4.7	6.4	8.6	1.0	4.0	4.2	17.8	0.0	0.0	0.0	0.0	0.0	0.0	3.4	12.7
1994	1.6	4.7	6.3	8.8	1.1	4.1	4.3	18.3	0.0	0.0	0.0	0.0	0.0	0.0	3.4	11.6
1995	1.7	4.5	6.2	8.7	1.1	4.1	4.4	18.2	0.0	0.0	0.0	0.0	0.0	0.0	3.6	11.1
1996	1.7	4.6	6.3	8.7	1.2	3.9	4.3	18.1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	12.5
1997	1.7	4.6	6.4	8.4	1.2	3.9	4.3	17.9	0.0	0.0	0.0	0.0	0.0	0.0	3.5	12.1

Table 30. Selenium contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
	Percent											
1909-19	7.0	1.1	3.3	11.5	7.1	2.7	0.5	0.7	11.0	7.7	3.9	63.0
1920-29	7.4	1.2	3.3	11.9	8.3	2.7	0.6	0.9	12.5	8.8	5.2	58.1
1930-39	7.3	1.3	3.1	11.7	8.9	2.7	0.7	1.2	13.6	8.8	7.0	55.1
1940-49	8.6	1.8	3.2	13.6	10.8	2.9	0.9	1.8	16.4	10.2	6.2	49.6
1950-59	8.6	2.7	4.2	15.5	10.9	2.1	1.4	2.4	16.7	11.7	8.9	43.0
1960-69	8.8	4.2	4.5	17.5	9.9	1.7	1.8	2.6	15.9	10.7	9.5	41.2
1970	8.5	5.0	5.0	18.5	8.7	2.4	2.1	2.8	16.0	10.4	9.6	39.6
1971	8.8	5.1	4.8	18.7	8.5	2.6	2.2	2.8	16.0	10.4	9.6	39.4
1972	8.0	5.3	5.3	18.6	8.1	2.7	2.3	2.7	15.8	10.1	11.0	38.6
1973	7.3	5.2	5.7	18.2	7.9	3.0	2.4	3.0	16.3	9.9	9.0	40.7
1974	8.0	5.4	5.6	18.9	7.6	3.1	2.5	2.8	16.1	10.0	7.5	41.5
1975	17.6	4.5	4.8	26.9	6.4	2.4	2.2	2.3	13.3	8.5	8.9	37.2
1976	18.0	4.8	4.9	27.8	6.0	3.0	2.3	2.3	13.6	8.1	7.8	37.4
1977	18.6	5.1	5.0	28.6	6.0	3.3	2.5	2.4	14.2	8.4	5.1	38.4
1978	17.4	5.2	5.3	27.9	5.7	3.4	2.5	2.4	14.0	8.4	6.8	37.7
1979	16.5	5.5	5.2	27.2	5.5	3.5	2.6	2.5	14.1	8.6	6.4	38.4
1980	16.6	5.8	5.0	27.4	5.3	3.7	2.6	2.5	14.1	8.6	5.5	39.2
1981	16.6	6.0	5.0	27.5	5.1	3.8	2.7	2.3	13.8	8.4	5.7	39.2
1982	15.7	5.9	4.8	26.4	4.7	3.7	2.9	2.3	13.6	8.2	7.5	39.0
1983	15.8	5.9	5.0	26.8	4.5	3.8	2.9	2.4	13.6	8.0	8.1	38.3
1984	15.7	6.1	5.2	27.0	4.4	3.9	3.0	2.5	13.8	7.9	7.3	38.4
1985	15.3	6.2	5.3	26.8	4.2	4.0	3.1	2.5	13.7	7.6	7.1	39.3
1986	15.1	6.4	5.4	26.9	3.9	4.1	3.1	2.6	13.7	7.5	7.2	39.4
1987	14.3	6.9	5.4	26.6	3.7	4.2	3.2	2.5	13.6	7.4	6.3	40.6
1988	14.0	6.9	5.3	26.2	3.5	4.2	3.1	2.4	13.2	7.1	6.3	41.9
1989	13.5	7.2	5.6	26.2	3.2	4.5	3.1	2.3	13.1	6.8	7.5	41.1
1990	12.9	7.5	5.1	25.5	2.9	4.6	3.1	2.5	13.1	6.7	7.4	41.9
1991	17.5	7.3	4.8	29.6	2.7	4.4	3.0	2.3	12.4	6.3	6.4	40.1
1992	17.4	7.4	4.6	29.4	2.5	4.4	3.0	2.3	12.2	6.2	7.8	39.2
1993	16.9	7.6	4.6	29.1	2.4	4.3	3.0	2.2	11.9	6.2	7.5	40.1
1994	17.2	7.6	4.6	29.4	2.3	4.4	3.0	2.5	12.2	6.2	6.8	40.2
1995	17.6	7.7	4.7	29.9	2.3	4.3	3.1	2.4	12.1	6.2	6.1	40.5
1996	16.6	7.7	4.4	28.7	2.2	4.2	3.1	2.4	11.8	6.1	7.0	40.9
1997	16.4	7.8	4.3	28.5	2.1	4.1	3.1	2.4	11.6	6.1	7.1	41.2

Table 30. Selenium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years (Continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.1	0.4	0.5	0.3	0.2	0.2	0.6	1.2	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.5
1920-29	0.1	0.5	0.6	0.3	0.2	0.2	0.8	1.4	0.1	0.0	0.0	0.0	0.0	0.2	0.7	0.7
1930-39	0.2	0.5	0.6	0.3	0.2	0.2	0.8	1.5	0.2	0.0	0.0	0.0	0.0	0.2	0.7	0.8
1940-49	0.2	0.4	0.6	0.3	0.2	0.2	0.9	1.6	0.1	0.0	0.0	0.0	0.0	0.1	0.7	1.0
1950-59	0.2	0.4	0.6	0.5	0.2	0.2	0.8	1.7	0.1	0.0	0.0	0.0	0.0	0.1	0.7	1.0
1960-69	0.2	0.4	0.6	1.4	0.2	0.2	0.7	2.5	0.1	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1970	0.2	0.4	0.6	1.7	0.2	0.3	0.7	2.8	0.1	0.0	0.0	0.0	0.0	0.1	0.8	1.5
1971	0.2	0.4	0.6	1.7	0.2	0.3	0.6	2.8	0.1	0.0	0.0	0.0	0.0	0.1	0.8	1.5
1972	0.2	0.4	0.5	1.7	0.2	0.3	0.6	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.7
1973	0.2	0.4	0.6	1.7	0.2	0.3	0.7	2.9	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.5
1974	0.2	0.4	0.6	1.8	0.2	0.3	0.7	3.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.5
1975	0.2	0.4	0.5	1.6	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1976	0.2	0.4	0.5	1.6	0.2	0.2	0.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.4
1977	0.2	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1978	0.2	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1979	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.1
1980	0.2	0.4	0.6	1.5	0.2	0.3	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1981	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1982	0.1	0.4	0.6	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1983	0.2	0.4	0.6	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1984	0.1	0.4	0.5	1.5	0.2	0.3	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1985	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1986	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1987	0.1	0.4	0.6	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1988	0.1	0.4	0.6	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2
1989	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3
1990	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1991	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1992	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3
1993	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2
1994	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3
1995	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2
1996	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1997	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4

Table 31. Potassium contributed from major food groups to the U.S. food supply, selected years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Percent					
1909-19	9.9	0.8	1.1	11.7	10.3	3.1	0.1	1.7	15.2	1.2	7.7	12.4
1920-29	9.6	0.8	1.2	11.6	11.6	2.7	0.2	2.8	17.3	1.4	7.2	10.7
1930-39	9.1	0.8	1.0	11.0	12.0	2.5	0.2	4.0	18.7	1.3	8.2	9.4
1940-49	10.2	1.1	0.9	12.2	13.9	1.9	0.2	5.4	21.5	1.4	8.0	7.8
1950-59	11.1	1.4	1.1	13.6	14.6	1.6	0.3	6.8	23.3	1.7	7.8	6.7
1960-69	12.1	2.1	1.0	15.3	13.3	2.6	0.4	7.0	23.3	1.5	7.8	6.5
1970	12.7	2.5	1.1	16.3	11.6	3.7	0.5	7.3	23.0	1.5	7.6	6.2
1971	13.0	2.6	1.1	16.6	11.4	3.9	0.5	7.3	23.1	1.5	7.6	6.1
1972	12.7	2.7	1.2	16.5	11.1	4.1	0.5	7.0	22.7	1.5	7.9	6.1
1973	11.8	2.5	1.2	15.5	10.6	4.4	0.6	7.4	22.9	1.4	9.0	6.2
1974	12.7	2.6	1.1	16.4	10.1	4.4	0.6	6.8	21.9	1.4	8.1	7.1
1975	11.5	2.5	1.1	15.2	9.8	3.9	0.6	6.4	20.8	1.3	9.2	7.3
1976	11.9	2.7	1.2	15.7	9.3	4.8	0.6	6.6	21.2	1.3	8.9	7.3
1977	12.0	2.7	1.2	15.9	9.0	5.1	0.6	6.6	21.3	1.3	9.3	7.6
1978	11.8	2.9	1.3	16.0	8.9	5.1	0.7	6.7	21.4	1.3	8.8	7.7
1979	11.3	3.0	1.2	15.5	8.3	5.2	0.7	6.8	21.0	1.3	9.3	7.7
1980	11.6	3.1	1.2	15.9	8.0	5.4	0.7	6.7	20.8	1.3	8.5	7.8
1981	11.7	3.2	1.2	16.1	7.7	5.6	0.7	6.4	20.4	1.3	8.9	7.9
1982	11.1	3.2	1.2	15.5	7.3	5.6	0.8	6.4	20.0	1.3	9.6	7.9
1983	11.4	3.1	1.2	15.7	7.0	5.6	0.8	6.6	19.9	1.3	9.5	7.8
1984	11.3	3.2	1.3	15.8	6.8	5.8	0.8	6.8	20.2	1.3	8.6	7.9
1985	11.2	3.2	1.3	15.7	6.4	6.0	0.8	6.8	20.1	1.2	9.7	8.1
1986	11.2	3.3	1.3	15.8	6.0	6.2	0.8	7.1	20.1	1.2	9.2	8.3
1987	11.0	3.6	1.4	16.1	5.8	6.4	0.9	7.0	20.2	1.2	8.3	9.1
1988	11.1	3.7	1.3	16.1	5.4	6.5	0.9	6.8	19.5	1.1	9.5	9.4
1989	10.9	3.8	1.4	16.1	5.0	7.0	0.9	6.5	19.4	1.1	8.7	9.4
1990	10.5	3.9	1.4	15.8	4.6	7.2	0.9	7.1	19.8	1.1	9.0	9.7
1991	10.5	4.0	1.4	15.9	4.4	7.3	0.9	6.7	19.3	1.1	9.4	9.7
1992	10.5	4.1	1.3	16.0	4.2	7.2	0.9	6.8	19.1	1.1	9.4	9.8
1993	10.3	4.2	1.3	15.9	4.0	7.1	0.9	6.8	18.8	1.1	9.1	10.1
1994	10.4	4.2	1.3	16.0	3.9	7.1	0.9	7.4	19.2	1.0	9.3	10.0
1995	10.7	4.2	1.4	16.3	3.8	7.2	0.9	6.8	18.7	1.1	9.3	10.1
1996	10.4	4.3	1.3	15.9	3.7	7.1	0.9	6.9	18.6	1.0	9.0	10.2
1997	10.2	4.4	1.3	15.9	3.6	7.1	1.0	6.8	18.4	1.1	9.3	10.2

Table 31. Potassium contributed from major food groups to the U.S. food supply, selected years (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.7	7.3	8.0	23.8	2.3	3.2	7.4	36.7	0.1	0.0	0.0	0.0	0.0	0.2	1.5	5.5
1920-29	1.1	7.8	8.9	21.0	2.8	3.0	8.2	35.0	0.1	0.0	0.0	0.0	0.0	0.2	1.2	6.6
1930-39	1.6	7.4	9.0	18.7	3.1	3.4	8.4	33.6	0.2	0.0	0.0	0.0	0.0	0.2	1.1	7.5
1940-49	2.4	6.3	8.7	16.2	2.9	3.9	7.9	30.9	0.1	0.1	0.0	0.0	0.0	0.2	0.9	8.5
1950-59	2.7	6.4	9.0	15.2	2.3	3.9	7.2	28.7	0.1	0.1	0.0	0.0	0.0	0.2	0.5	8.5
1960-69	2.7	6.0	8.7	14.7	2.1	3.6	6.7	27.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5	8.9
1970	3.3	5.9	9.2	14.3	1.8	4.3	6.7	27.1	0.0	0.2	0.0	0.0	0.0	0.2	0.5	8.4
1971	3.5	5.9	9.4	13.5	1.8	4.6	6.7	26.6	0.0	0.1	0.0	0.0	0.0	0.2	0.5	8.3
1972	3.7	5.5	9.2	13.8	1.8	4.5	6.6	26.7	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.8
1973	3.7	5.6	9.3	13.3	1.9	4.2	6.8	26.2	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.6
1974	3.9	5.7	9.6	13.1	1.9	4.4	6.8	26.2	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.5
1975	4.2	5.9	10.1	13.9	1.9	4.5	6.9	27.3	0.0	0.2	0.0	0.0	0.0	0.2	0.6	7.9
1976	4.2	5.8	10.0	13.4	1.9	4.6	6.8	26.6	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.2
1977	4.2	6.0	10.2	13.4	1.8	4.5	7.1	26.8	0.0	0.2	0.0	0.0	0.0	0.2	0.6	6.7
1978	3.9	6.4	10.2	13.2	1.8	4.4	7.1	26.5	0.0	0.2	0.0	0.0	0.0	0.2	0.6	7.4
1979	3.8	6.4	10.2	13.1	1.9	4.6	7.0	26.7	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.6
1980	4.2	6.6	10.7	13.3	1.9	4.6	7.1	26.9	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.3
1981	3.9	6.7	10.7	13.1	2.0	4.5	7.1	26.7	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.4
1982	3.9	7.0	10.9	13.1	2.1	4.5	7.1	26.7	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.3
1983	4.5	6.8	11.3	13.3	2.0	4.4	6.7	26.4	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.4
1984	3.7	7.3	11.0	13.2	2.1	4.8	6.8	26.9	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.7
1985	3.7	7.1	10.9	12.7	2.0	4.4	6.8	25.8	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.7
1986	4.0	7.3	11.3	12.9	1.9	4.4	6.5	25.8	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.7
1987	3.9	7.7	11.6	12.6	2.0	4.4	6.3	25.2	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.7
1988	3.9	7.5	11.4	12.5	1.9	4.2	6.4	25.0	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.4
1989	3.5	7.6	11.2	12.8	2.0	4.6	6.5	25.8	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.7
1990	3.0	7.3	10.3	12.4	2.0	4.8	6.5	25.6	0.0	0.1	0.0	0.0	0.0	0.2	0.5	8.0
1991	3.4	7.1	10.5	12.4	1.9	4.8	6.3	25.4	0.0	0.1	0.0	0.0	0.0	0.2	0.5	8.1
1992	3.4	7.3	10.6	12.5	2.0	4.5	6.4	25.4	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.9
1993	4.0	7.3	11.3	12.8	1.9	4.6	6.3	25.7	0.0	0.1	0.0	0.0	0.0	0.2	0.6	7.4
1994	3.8	7.3	11.0	13.0	2.1	4.7	6.3	26.0	0.0	0.1	0.0	0.0	0.0	0.2	0.5	6.7
1995	4.0	7.1	11.2	12.9	2.2	4.7	6.3	26.1	0.0	0.1	0.0	0.0	0.0	0.2	0.6	6.5
1996	3.9	7.2	11.2	13.0	2.3	4.6	6.3	26.2	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.2
1997	4.1	7.3	11.4	12.6	2.5	4.6	6.3	26.0	0.0	0.1	0.0	0.0	0.0	0.1	0.5	7.2

Table 32. Sodium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
	Percent											
1909-19	27.3	1.2	6.0	34.4	14.1	4.0	3.2	2.3	23.6	5.5	0.3	2.9
1920-29	25.4	1.1	4.4	30.9	14.2	3.2	3.2	3.4	24.0	5.4	0.3	2.4
1930-39	23.1	1.1	3.8	28.0	14.4	2.8	3.6	4.9	25.7	5.0	0.3	1.8
1940-49	24.2	1.3	2.8	28.3	15.7	2.1	4.0	6.2	28.1	5.2	0.3	1.4
1950-59	23.1	1.4	2.9	27.4	14.4	1.8	4.9	6.7	27.8	5.4	0.3	0.9
1960-69	22.2	2.0	2.5	26.6	11.9	2.6	5.8	6.3	26.7	4.4	0.2	0.7
1970	20.0	2.2	2.3	24.5	9.8	3.3	6.2	6.4	25.7	4.0	0.2	0.6
1971	20.6	2.2	2.3	25.1	9.4	3.4	6.4	6.4	25.6	3.9	0.2	0.5
1972	19.1	2.3	2.5	23.9	9.3	3.6	7.0	6.3	26.3	3.9	0.2	0.5
1973	17.3	2.2	2.5	22.1	9.0	4.0	7.3	6.8	27.1	3.8	0.3	0.5
1974	18.2	2.2	2.4	22.9	8.5	3.8	7.8	6.4	26.5	3.7	0.2	0.6
1975	16.1	2.2	2.3	20.6	8.4	3.6	7.9	6.3	26.1	3.7	0.3	0.7
1976	15.9	2.3	2.4	20.6	7.8	4.2	8.2	6.4	26.6	3.5	0.2	0.6
1977	16.2	2.3	2.4	20.9	7.5	4.5	8.6	6.3	27.0	3.5	0.3	0.7
1978	15.9	2.5	2.6	20.9	7.4	4.5	9.2	6.5	27.5	3.6	0.2	0.7
1979	16.5	2.6	2.4	21.5	7.0	4.5	9.2	6.7	27.4	3.6	0.2	0.7
1980	17.4	2.7	2.3	22.5	6.8	4.8	9.6	6.8	28.0	3.6	0.2	0.7
1981	16.9	2.8	2.5	22.1	6.5	4.9	10.1	6.6	28.1	3.6	0.2	0.7
1982	15.3	2.8	2.4	20.4	6.2	5.0	11.1	6.7	29.0	3.6	0.3	0.7
1983	15.8	2.8	2.5	21.0	6.0	5.0	11.3	6.9	29.2	3.5	0.3	0.7
1984	15.1	2.8	2.6	20.4	5.7	5.1	11.6	7.0	29.4	3.4	0.2	0.7
1985	14.7	2.8	2.6	20.2	5.5	5.3	12.0	7.2	30.0	3.3	0.3	0.8
1986	13.9	2.9	2.8	19.6	5.2	5.6	12.1	7.5	30.4	3.3	0.3	0.8
1987	13.6	3.2	2.7	19.5	5.0	5.7	12.9	7.4	31.0	3.3	0.2	0.8
1988	14.2	3.3	2.7	20.1	4.8	5.9	12.8	7.3	30.9	3.3	0.3	0.9
1989	13.6	3.4	2.7	19.7	4.4	6.3	12.7	6.9	30.4	3.1	0.3	0.9
1990	12.5	3.5	2.7	18.7	4.0	6.4	12.8	7.5	30.8	3.0	0.3	0.9
1991	12.2	3.6	2.8	18.6	3.9	6.6	13.1	7.2	30.8	3.0	0.3	0.9
1992	12.3	3.7	2.6	18.7	3.7	6.5	13.4	7.4	30.9	3.0	0.3	0.9
1993	12.0	3.8	2.6	18.5	3.6	6.4	13.5	7.4	30.9	3.0	0.3	0.9
1994	12.0	3.9	2.6	18.5	3.5	6.5	13.7	8.0	31.6	3.0	0.3	0.9
1995	12.2	3.9	2.7	18.8	3.4	6.6	14.2	7.4	31.5	3.0	0.3	0.9
1996	11.8	4.0	2.6	18.5	3.4	6.7	14.4	7.6	32.1	3.1	0.3	1.0
1997	11.6	4.1	2.6	18.3	3.3	6.6	14.8	7.5	32.2	3.1	0.3	1.0

Table 32. Sodium contributed from major food groups to the U.S. food supply, selected years (continued)

	Fruits			Vegetables					Fats & oils								
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweet-eners	Miscel-laneous
									Percent							
1909-19	0.0	0.8	0.8	1.1	0.7	3.6	5.0	10.4	18.7	1.4	0.0	0.0	0.0	20.0	1.7	0.3
1920-29	0.0	0.9	0.9	0.9	1.3	3.3	9.0	14.4	17.7	1.9	0.0	0.0	0.0	19.6	1.9	0.3
1930-39	0.0	1.0	1.0	0.8	1.5	3.3	10.2	15.8	17.8	2.6	0.0	0.0	0.0	20.3	1.7	0.4
1940-49	0.0	1.1	1.1	0.6	1.5	4.4	11.4	18.0	11.2	3.9	0.0	0.0	0.0	15.2	2.1	0.4
1950-59	0.0	1.3	1.3	1.1	1.1	5.4	12.0	19.7	7.6	7.7	0.0	0.0	0.0	15.3	1.6	0.4
1960-69	0.0	1.3	1.3	2.5	1.0	6.4	13.4	23.2	5.3	8.9	0.0	0.0	0.0	14.2	2.3	0.3
1970	0.0	1.4	1.4	2.8	1.0	8.2	15.3	27.3	4.0	9.2	0.0	0.0	0.0	13.2	2.7	0.3
1971	0.1	1.4	1.4	2.7	0.9	8.8	15.0	27.6	3.8	8.8	0.0	0.0	0.0	12.6	2.7	0.3
1972	0.1	1.2	1.2	2.8	1.0	8.9	15.0	27.6	3.7	9.3	0.0	0.0	0.0	13.0	3.0	0.3
1973	0.1	1.3	1.4	2.8	1.1	8.2	15.7	27.8	3.6	9.8	0.0	0.0	0.0	13.4	3.3	0.3
1974	0.1	1.2	1.2	2.8	1.0	9.1	15.4	28.3	3.4	9.3	0.0	0.0	0.0	12.7	3.5	0.3
1975	0.1	1.4	1.5	2.8	1.0	9.8	16.1	29.7	3.7	9.9	0.0	0.0	0.0	13.5	3.6	0.3
1976	0.1	1.4	1.5	2.8	1.0	10.3	15.7	29.7	3.2	10.3	0.0	0.0	0.0	13.5	3.4	0.3
1977	0.1	1.6	1.6	2.9	0.9	9.9	15.6	29 3	3.2	9.8	0.0	0.0	0.0	13.1	3.4	0.3
1978	0.1	1.3	1.4	3.0	0.9	8.9	16.0	28.8	3.3	9.9	0.0	0.0	0.0	13.3	3.4	0.3
1979	0.1	0.8	0.8	2.8	1.0	10.2	15.1	29.2	3.4	9.7	0.0	0.0	0.0	13.1	3.2	0.3
1980	0.1	0.9	1.0	2.9	0.9	8.7	14.5	27.0	3.5	10.0	0.0	0.0	0.0	13.5	3.2	0.3
1981	0.1	1.0	1.0	2.9	0.9	9.1	14.4	27.4	3.3	10.1	0.0	0.0	0.0	13.4	3.1	0.3
1982	0.1	2.0	2.0	3.0	0.9	9.6	13.5	26.9	3.4	10.2	0.0	0.0	0.0	13.6	3.1	0.3
1983	0.1	1.5	1.6	3.0	0.8	9.7	13.5	27.0	3.8	9.4	0.0	0.0	0.0	13.2	3.2	0.3
1984	0.1	1.7	1.7	3.0	0.9	10.8	12.9	27.6	3.7	9.3	0.0	0.0	0.0	13.0	3.2	0.3
1985	0.1	1.8	1.9	2.9	0.8	9.7	13.5	27.0	3.6	9.4	0.0	0.0	0.0	13.1	3.2	0.3
1986	0.1	1.9	2.0	3.0	0.8	9.9	12.9	26.6	3.5	10.1	0.0	0.0	0.0	13.5	3.2	0.3
1987	0.1	1.8	1.8	3.0	0.8	10.3	12.9	27.0	3.5	9.4	0.0	0.0	0.0	12.9	3.2	0.3
1988	0.1	1.7	1.7	3.0	0.8	10.0	12.7	26.4	3.5	9.3	0.0	0.0	0.0	12.7	3.4	0.3
1989	0.1	1.9	2.0	3.0	0.8	11.2	12.5	27.5	3.3	9.2	0.0	0.0	0.0	12.5	3.4	0.3
1990	0.1	1.8	1.8	3.0	0.8	11.9	12.2	27.9	3.3	9.6	0.0	0.0	0.0	12.9	3.5	0.4
1991	0.1	1.2	1.3	3.0	0.8	12.2	12.4	28.5	3.3	9.4	0.0	0.0	0.0	12.7	3.6	0.4
1992	0.1	2.1	2.2	3.0	0.9	11.5	11.6	27.1	3.2	9.7	0.0	0.0	0.0	12.9	3.7	0.4
1993	0.1	1.8	1.9	3.0	0.8	11.9	11.2	27.0	3.5	9.8	0.0	0.0	0.0	13.3	3.9	0.3
1994	0.1	1.4	1.5	3.1	0.9	12.0	11.8	27.7	3.6	8.7	0.0	0.0	0.0	12.2	3.9	0.3
1995	0.1	1.3	1.4	3.0	1.0	11.9	12.2	28.2	3.4	8.2	0.0	0.0	0.0	11.6	4.1	0.3
1996	0.1	2.2	2.3	3.1	1.0	11.8	11.0	27.0	3.3	8.3	0.0	0.0	0.0	11.6	3.9	0.4
1997	0.1	1.7	1.7	3.0	1.0	11.7	12.5	28.2	3.1	7.7	0.0	0.0	0.0	10.9	4.0	0.4

Table 33. Dietary Reference Intakes, recommended intakes for individuals

Life-stage group	Calcium	Phos-phorus	Mag-nesium	Vitamin D*	Flouride	Thiamin	Ribo-flavin	Niacin**	Vitamin B_6	Folate***	Vitamin B_{12}	Panto-thenic acid	Biotin	Choline	Vitamin C	Vitamin E	Selenium
	Milligrams/day									*Micrograms/day*		*Milligms/ day*	*Micrograms/ day*	*Milligrams/day*			*Micrograms/ day*
Infants																	
0-6 mos	*210*	*100*	*30*	*5*	*0.01*	*0.2*	*0.3*	*2*	*0.1*	*65*	*0.4*	*1.7*	5	*125*	*40*	*4*	*15*
7-12 mos	*270*	*275*	*75*	*5*	*0.5*	*0.3*	*0.4*	*4*	*0.3*	*80*	*0.5*	*1.8*	6	*150*	*50*	*6*	*20*
Children																	
1-3 yr	*500*	460	80	5	0.7	0.5	0.5	6	0.5	150	0.9	2	8	*200*	15	6	20
4-8 yr	*800*	500	130	5	1	0.6	0.6	8	0.6	200	1.2	3	12	*250*	25	7	30
Males																	
9-13 yr	1300	1250	240	5	2	0.9	0.9	12	1.0	300	1.8	4	20	*375*	45	11	40
14-18 yr	1300	1250	410	5	3	1.2	1.3	16	1.3	400	2.4	5	25	*550*	75	15	55
19-30 yr	1000	700	400	5	4	1.2	1.3	16	1.3	400	2.4	5	30	*550*	90	15	55
31-50 yr	1000	700	420	5	4	1.2	1.3	16	1.3	400	2.4	5	30	*550*	90	15	55
51-70 yr	1200	700	420	10	4	1.2	1.3	16	1.7	400	2.4	5	30	*550*	90	15	55
>70 yr	1200	700	420	15	4	1.2	1.3	16	1.7	400	2.4	5	30	*550*	90	15	55
Females																	
9-13 yr	1300	1250	240	5	2	0.9	0.9	12	1.0	300	1.8	4	20	*375*	45	11	40
14-18 yr	1300	1250	360	5	3	1.0	1.0	14	1.2	400	2.4	5	25	*400*	65	15	55
19-30 yr	1000	700	310	5	3	1.1	1.1	14	1.3	400	2.4	5	30	*425*	75	15	55
31-50 yr	1000	700	320	5	3	1.1	1.1	14	1.3	400	2.4	5	30	*425*	75	15	55
51-70 yr	1200	700	320	10	3	1.1	1.1	14	1.5	400	2.4	5	30	*425*	75	15	55
>70 yr	1200	700	320	15	3	1.1	1.1	14	1.5	400	2.4	5	30	*425*	75	15	55
Pregnancy																	
≤18 yr	1300	1250	400	5	3	1.4	1.4	18	1.9	600	2.6	6	30	*450*	80	15	60
19-30 yr	1000	700	350	5	3	1.4	1.4	18	1.9	600	2.6	6	30	*450*	85	15	60
31-50 yr	1000	700	360	5	3	1.4	1.4	18	1.9	600	2.6	6	30	*450*	85	15	60
Lactation																	
<18 yr	1300	1250	360	5	3	1.4	1.6	17	2.0	500	2.8	7	35	*550*	115	19	70
19-30 yr	1000	700	310	5	3	1.4	1.6	17	2.0	500	2.8	7	35	*550*	120	19	70
31-50 yr	1000	700	320	5	3	1.4	1.6	17	2.0	500	2.8	7	35	*550*	120	19	70

This table presents Recommended Dietary Allowances (RDAs) in regular type and Adequate Intake (AI) in italicized type.
Recommended Dietary Allowance is the intake that meets the nutrient needs of almost all (97-98 percent) individuals in a group.
*As cholecalciferol, 1 ug cholcalciferol = 40 IU vitamin D; in the absence of adequate exposure to sunlight.
**As niacin equivalent, 1 mg of niacin = 60 mg of tryptophan.
***As dietary folate equivalents (DFE).
Source: Institute of Medicine, Food and Nutrition Board, 1999 and 2000.

Table 34. Recommended Dietary Allowances, 1989, for selected nutrients

	Protein	Vitamin A	Vitamin E	Vitamin C	Thiamin	Riboflavin	Niacin	Vitamin B_6	Folate	Vitamin B_{12}	Calcium	Phos-phorus	Mag-nesium	Iron	Zinc	Sele-nium
	Grams	*Micrograms Retinol Equivalent*	*Milligrams Alpha-Tocopherol Equivalent*	*Milligrams*					*Micrograms*		*Milligrams*					*Micro-grams*
Infants																
0.0-0.5	13	375	3	30	0.3	0.4	5	0.3	25	0.3	400	300	40	6	5	10
0.5-1.0	14	375	4	35	0.4	0.5	6	0.6	35	0.5	600	500	60	10	5	15
Children																
1-3	16	400	6	40	0.7	0.8	9	1.0	50	0.7	800	800	80	10	10	20
4-6	24	500	7	45	0.9	1.1	12	1.1	75	1.0	800	800	120	10	10	20
7-10	28	700	7	45	1.0	1.2	13	1.4	100	1.4	800	800	170	10	10	30
Males																
11-14	45	1000	10	50	1.3	1.5	17	1.7	150	2.0	1200	1200	270	12	15	40
15-18	59	1000	10	60	1.5	1.8	20	2.0	200	2.0	1200	1200	400	12	15	50
19-24	58	1000	10	60	1.5	1.7	19	2.0	200	2.0	1200	1200	350	10	15	70
25-50	63	1000	10	60	1.5	1.7	19	2.0	200	2.0	800	800	350	10	15	70
51+	63	1000	10	60	1.2	1.4	15	2.0	200	2.0	800	800	350	10	15	70
Females																
11-14	46	800	8	50	1.1	1.3	15	1.4	150	2.0	1200	1200	280	15	12	45
15-18	44	800	8	60	1.1	1.3	15	1.5	180	2.0	1200	1200	300	15	12	50
19-24	46	800	8	60	1.1	1.3	15	1.6	180	2.0	1200	1200	280	15	12	55
25-50	50	800	8	60	1.1	1.3	15	1.6	180	2.0	800	800	280	15	12	55
51+	50	800	8	60	1.0	1.2	13	1.6	180	2.0	800	800	280	10	12	55
Pregnant	60	800	10	70	1.5	1.6	17	2.2	400	2.2	1200	1200	320	30	15	65
Lactating																
1st 6 mos	65	1300	12	95	1.6	1.8	20	2.1	280	2.6	1200	1200	355	15	19	75
2nd 6 mos	62	1200	11	90	1.6	1.7	20	2.1	260	2.6	1200	1200	340	15	16	75

Table 35. Foods per capita per year by major food groups in the U.S. food supply

Year	Meat, poultry & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products[1]
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
							Pounds					
1909-19	136.8	16.9	11.1	164.8	214.2	57.8	4.7	40.0	336.7	36.6	16.1	280.0
1920-29	131.8	16.4	11.4	159.6	236.6	50.0	5.4	67.5	379.6	39.3	15.7	238.6
1930-39	124.0	16.5	9.9	150.4	242.0	45.3	6.5	85.3	407.1	37.1	17.7	212.3
1940-49	147.2	22.3	9.8	179.3	299.0	38.4	8.5	129.2	505.5	43.4	19.1	193.1
1950-59	144.7	29.3	10.9	184.9	285.4	27.3	11.7	129.1	497.1	47.1	17.0	156.0
1960-69	149.8	41.3	10.7	201.8	247.9	32.3	14.2	137.5	474.7	40.8	16.9	146.0
1970	157.3	49.1	11.8	218.2	219.2	48.1	16.4	151.3	484.5	39.5	17.0	142.0
1971	161.4	49.4	11.4	222.2	214.9	51.5	17.3	150.3	485.7	39.7	17.1	141.7
1972	156.3	51.3	12.5	220.1	207.5	54.9	18.3	143.4	481.2	38.8	17.5	139.8
1973	143.9	49.0	12.8	205.7	197.7	60.7	18.5	147.4	484.0	37.0	19.0	143.3
1974	154.0	49.3	12.1	215.4	186.8	59.3	18.9	135.1	464.3	36.3	17.1	146.8
1975	147.9	48.0	12.1	208.0	181.2	60.0	18.9	129.3	452.3	35.4	19.0	150.7
1976	156.0	51.9	12.9	220.8	175.2	77.4	20.1	132.5	474.4	34.6	18.6	155.1
1977	155.0	52.4	12.6	220.0	167.3	82.4	20.6	130.3	471.9	34.3	18.6	153.3
1978	148.9	54.5	13.4	216.8	161.0	85.0	21.4	129.2	471.8	34.9	17.8	151.2
1979	145.2	57.8	13.0	216.0	154.8	87.8	21.6	131.3	471.9	35.5	18.7	156.2
1980	147.4	58.4	12.6	218.4	146.4	91.0	21.9	127.9	464.8	34.8	16.7	156.8
1981	145.8	60.2	12.7	218.7	140.0	93.5	22.4	120.9	457.1	34.0	17.7	157.6
1982	139.2	60.3	12.3	211.8	133.4	93.8	24.0	121.5	461.0	34.0	19.3	159.9
1983	143.9	60.9	13.0	217.8	130.3	96.2	24.6	126.8	469.2	33.5	19.5	159.7
1984	143.4	62.5	13.7	219.6	126.9	100.4	25.5	133.5	481.5	33.5	18.2	161.2
1985	144.0	65.6	14.3	223.9	123.4	106.3	26.5	137.8	494.7	32.8	20.7	169.3
1986	142.0	67.0	14.5	223.5	116.5	112.1	27.1	144.0	502.1	32.6	20.2	175.4
1987	137.0	72.0	15.0	224.0	111.9	114.6	28.0	143.0	505.0	32.7	18.4	184.6
1988	138.3	72.8	15.6	226.7	105.7	116.6	27.5	140.9	495.8	31.8	20.8	189.8
1989	135.0	75.5	15.5	226.0	97.5	126.7	27.3	135.9	492.3	30.5	19.5	189.3
1990	130.6	78.7	15.0	224.3	90.4	131.3	27.9	145.5	503.7	30.2	19.7	196.9
1991	129.5	81.5	14.9	225.9	87.3	133.8	28.3	140.7	499.9	30.1	20.6	199.7
1992	131.6	85.2	14.8	231.6	84.0	134.3	29.1	144.9	505.9	30.3	20.7	202.7
1993	129.0	87.7	15.0	231.7	80.1	133.3	29.1	145.0	501.4	30.4	20.2	208.2
1994	131.9	88.8	15.2	235.9	78.8	134.8	29.6	157.1	516.0	30.6	20.6	211.4
1995	132.8	88.2	15.0	236.0	75.3	134.5	29.8	144.8	502.2	30.2	20.2	209.5
1996	130.3	90.3	14.8	235.4	74.6	135.4	30.2	142.5	532.2	30.6	19.8	215.3
1997	129.2	92.4	14.6	236.2	72.7	134.1	30.6	143.6	502.3	30.8	20.6	217.0

[1]Includes per capita consumption estimates for ready-to-eat and ready-to-cook cereals beginning in 1970.

Table 35. Foods per capita per year by major food groups in the U.S. food supply (continued)

Year	Fruits			Vegetables					Fats & oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	19.0	158.1	177.1	169.6	35.1	46.4	141.0	392.1	16.8	1.9	9.5	11.4	2.1	41.7	90.0	11.6
1920-29	29.5	160.0	189.5	146.7	39.6	41.5	152.5	380.3	17.4	2.3	8.3	12.8	4.2	45.0	112.6	13.9
1930-39	42.7	148.5	191.2	129.4	42.4	46.1	157.3	375.2	17.6	2.5	10.3	12.3	5.9	48.6	111.6	15.6
1940-49	65.2	138.8	204.0	120.1	41.0	52.9	161.6	375.6	12.6	4.1	9.5	12.7	7.1	46.0	105.0	19.0
1950-59	59.9	126.7	186.6	100.6	28.7	45.2	135.8	310.3	8.9	8.0	10.9	10.6	9.7	48.1	109.3	16.6
1960-69	54.6	112.8	167.4	87.6	24.4	36.1	123.0	271.1	6.5	9.9	14.6	6.2	13.8	51.0	114.5	16.2
1970	63.3	113.9	177.2	85.3	23.2	45.0	125.2	278.7	5.4	10.8	17.4	4.6	17.7	55.9	122.3	15.8
1971	67.5	114.9	182.4	80.8	22.7	47.2	125.3	276.0	5.2	10.9	16.8	4.2	17.9	55.0	123.4	15.4
1972	70.2	106.1	176.3	82.3	23.4	45.4	123.4	274.5	5.0	11.1	17.6	3.8	19.1	56.6	125.0	16.3
1973	69.4	108.0	177.4	79.6	24.4	43.2	126.3	273.5	4.8	11.1	17.1	3.3	20.3	56.6	125.6	15.8
1974	72.1	107.0	179.1	77.6	24.5	43.6	126.0	271.7	4.5	11.1	16.9	3.2	20.0	55.7	121.9	15.1
1975	76.9	111.6	188.5	82.5	24.7	44.3	127.5	279.0	4.7	11.0	17.0	3.2	20.0	55.9	118.0	14.2
1976	78.3	111.3	189.6	81.4	24.7	45.8	129.1	281.0	4.3	11.9	17.7	2.9	21.5	58.3	123.9	15.0
1977	76.3	113.9	190.2	81.5	23.0	44.4	131.2	280.1	4.3	11.4	17.2	2.5	21.2	56.6	126.5	12.2
1978	70.6	117.7	188.3	77.6	22.7	43.2	128.1	271.6	4.4	11.3	17.8	2.4	22.1	58.0	123.7	13.1
1979	69.7	118.7	188.4	78.9	24.6	44.7	128.5	276.7	4.5	11.1	18.4	2.9	22.2	59.1	123.0	13.5
1980	75.2	122.4	197.6	78.8	23.9	47.1	128.6	278.4	4.5	11.3	18.1	3.7	22.5	60.1	123.0	12.9
1981	70.2	119.6	189.8	77.2	24.6	44.2	127.9	273.9	4.2	11.1	18.5	3.5	23.0	60.3	122.2	13.1
1982	70.0	126.0	196.0	77.1	24.7	44.5	127.1	273.4	4.4	11.0	18.6	3.8	23.2	61.0	120.4	12.9
1983	80.4	123.1	203.5	79.6	24.8	43.4	122.7	270.5	4.9	10.4	18.4	4.1	25.0	62.8	121.9	13.4
1984	66.7	132.3	199.0	80.1	26.5	45.9	125.6	278.1	4.9	10.4	21.3	3.8	24.3	64.7	124.6	13.9
1985	68.6	132.1	200.7	78.9	26.5	42.5	127.9	275.8	4.9	10.8	22.9	3.7	25.2	67.5	128.8	14.4
1986	75.0	136.5	211.5	81.8	25.6	42.5	125.0	274.9	4.6	11.4	22.1	3.5	24.9	66.5	127.0	14.5
1987	71.6	143.8	215.4	79.1	25.4	39.9	120.3	264.7	4.7	10.6	21.4	2.7	25.9	65.3	131.6	14.3
1988	73.2	141.3	214.5	78.7	25.4	39.5	123.1	266.7	4.5	10.3	21.5	2.6	26.9	65.8	132.7	13.9
1989	67.4	144.0	211.4	80.8	26.2	42.1	125.3	274.4	4.4	10.2	21.5	2.1	25.0	63.2	133.1	14.6
1990	58.1	141.3	199.4	78.8	26.5	43.8	126.3	275.4	4.4	10.9	22.2	2.4	25.0	64.9	137.0	15.3
1991	63.7	136.7	200.4	79.6	25.9	43.9	123.5	272.9	4.4	10.6	22.4	3.1	26.7	67.2	138.0	15.6
1992	65.9	144.6	210.5	81.8	28.0	42.6	126.2	278.6	4.4	11.0	22.4	4.1	27.1	69.0	141.2	15.6
1993	77.1	142.7	219.8	84.2	26.9	43.6	124.4	279.1	4.7	11.1	25.1	3.9	27.0	71.8	144.4	14.6
1994	74.1	145.1	219.2	87.1	29.8	44.9	127.1	288.9	4.8	9.9	24.2	4.7	27.2	70.8	147.4	13.6
1995	77.2	140.1	217.3	85.1	30.3	44.9	124.0	284.3	4.5	9.2	22.7	4.9	27.7	69.0	150.0	13.0
1996	77.2	145.5	222.7	87.8	32.8	44.9	124.6	290.1	4.3	9.2	22.5	5.3	26.8	68.1	150.7	14.7
1997	79.9	147.7	227.6	84.9	34.9	45.2	126.9	291.9	4.2	8.5	20.9	4.7	29.2	67.5	154.1	14.8

Appendix A

Food Supply Fortification

CNPP consulted with members of the food industry, trade associations, fortification policy/food regulatory staff at the Food and Drug Administration (FDA), academic experts in food science and nutraceuticals, and chemical suppliers of added nutrient formulations. The FDA provided labeling data from the 1997 Food Label and Package Survey. These data contain valuable information on enriched and fortified food items and the amount of fortification as a percentage of daily values (per the Nutrition Facts Label). They were used to establish or verify fortification levels of several food supply commodities, such as white flour, breakfast cereals, rice, pasta, and margarine. Additionally, results from a survey of enrichment of corn products, done in cooperation with the North American Millers' Association, contributed similar information on corn meal and grits. For other food commodities, such as fruit drinks and juices, individual dairy products, and meal replacements, adequate information does not exist to estimate added nutrients or fortification.

Food supply fortification files were revised using two types of fortification files: historical files and dynamic or active files. Development of these files accounts for nutrient fortification over the series without risk of double counting because historical fortification data are distinctly separated from current fortification. Historical files contain estimates of added nutrients per year and nutrients for a specific commodity or commodity category. These estimates were derived from a special survey designed by the U.S. Department of Agriculture and included as a component to the 1970 Population Census, conducted by the Bureau of Census. Absolute amounts of nutrients added by manufacturers and distributors of vitamins and minerals were directly entered into the food supply fortification file for a specific commodity. In the historical files no link is made to the commodity's quantity data. Some food commodities have only historical files because adequate information does not exist to estimate added nutrients as fortifications. These food commodity categories are dairy products, fruit and fruit juices, and miscellaneous foods. Otherwise, historical fortification files generally contain added nutrient data from the date of initial enrichment (or fortification) of a commodity to 1969 (for rice, corn meal/grits, and margarine) and to 1973 (for ready-to-eat and breakfast cereals, white flour, and semolina). In all cases, historical fortification data are included in the food supply nutrient estimates for a particular year.

Dynamic or active fortification files link commodity quantity data directly to nutrient data for a specific year based on enrichment/fortification policy for that year. Food commodities with active fortification files are rice, corn meal/grits, and margarine from 1970, and for ready-to-eat and cooked breakfast cereals, white flour, and semolina from 1974.

The update of these fortification data and the creation of active fortification files affect both food supply nutrient totals per capita per day and the percentage contribution from these nutrients. As a result, nutrient estimates and their percentage contribution by food group in this report may be greater than previously reported for those nutrients added to foods through enrichment or fortification.

Criteria Used To Estimate Level of Fortification/Enrichment by Food Supply Commodity

Wheat Flour Products

The historical files for flour products contain estimates of added thiamin, riboflavin, niacin, and iron by year for white flour for the years 1941-73. Beginning in 1974 dynamic or active files are available for flour products. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity. Estimates from 1998 and later years reflect folate fortification policy for flour products.

White Flour in the food supply is reflected as a single commodity item. Beginning in 1974,[1] 90 percent of the white flour is estimated as enriched; 10 percent is estimated as unenriched. These percentages are applied to the total quantity of white flour for a particular year.

Semolina in the food supply is reflected as a single commodity item. Beginning in 1974, 95 percent of the semolina flour is estimated as enriched; 5 percent is estimated as unenriched, based on information received from the National Pasta Association.

Corn Products

Results from a survey of enrichment of corn products, done in cooperation with the North American Millers' Association, were used to determine the level of enrichment of corn meal and grits (table 1). The historical files for corn products contain estimates of added thiamin, riboflavin, niacin, and iron by year for corn grits for the years 1943-69. Beginning in 1970, dynamic or active files are available for corn products. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity. Estimates from 1998 and later years reflect folate fortification policy for corn products.

Corn Grits in the food supply are reflected in a nutrient composite: white corn grits (50 percent) and yellow corn grits (50 percent). Ninety-five percent of the white corn grits are considered enriched; the yellow corn grits are not considered enriched (table 1). Since enriched white corn grits make up 50 percent of the nutrient composite, a factor of 0.475 is used to account for the percentage of total corn grits enriched. A value of 1.0 minus the factor used to account for enrichment (0.475) or 0.525 is the factor used to account for the unenriched corn grits.

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[1]The following percentages were used prior to 1974: 1954-62, 60 percent; 1962-69, 65 percent; 1970, 70 percent; 1971, 75 percent; 1972, 80 percent; and 1973, 85 percent.

Table 1. Summary results of survey of the North American Millers' Association on enrichment of corn meal, corn grits, and corn flour[1]

Company number	Meal, white	Grits, white	Flour, white	Meal, yellow	Grits, yellow	Flour, yellow
			Percent			
1	100	100	100	100	NA	NA
2	100	NA	NA	NA	NA	NA
3	100	80	80	100	NA	NA
4	64	NA	NA	14	NA	NA
5	100	100	NA	50	0	70
6	100	NA	100	100	NA	100
7	NA	NA	NA	50	10	50
8	95	NA	NA	95	NA	NA
9	<2	21	0	42	0	<2
10	100	100	NA	NA	NA	NA
11	NO	NO	NO	NO	NO	NO
12	96	100	NA	49	NA	NA
13	100	NA	NA	100	NA	NA
14	100	NA	NA	100	NA	NA
15	100	NA	100	100	NA	100
16	NA	NA	NA	5	1	25
17	100	NA	NA	100	NA	NA
Total[2]	1255	480	380	963	NA	345
Approximate percent enriched	89.9	96.0	76.0	68.8	NA	57.5

[1]Basically the same percentage enrichment since 1970; except where uncertain prior to 1985.
Source of enrichment is pre-mix added at about 0.25 ounces per pound.
Enrichment (American Ingredients Company's Type 4FN-Richment-A):
Niacin 14.0 mg/lb; thiamin 1.9 mg/lb; riboflavin 1.2 mg/lb; iron 12.0 mg/lb; and folic acid 0.75 mg/lb.
Enrichment (other):
Niacin 13.7 mg/lb; thiamin 1.9 mg/lb; riboflavin 1.15 mg/lb; iron 12.0 mg/lb; and folic acid 0.7 mg/lb.
Niacin 20.0 mg/lb; thiamin 2.5 mg/lb; riboflavin 1.5 mg; iron 20 mg/lb; and folic acid 0.8 mg/lb.

[2]Company 9 was not included due to low percentage enriched.

Corn Meal in the food supply is reflected in a nutrient composite: yellow, whole-grain corn meal (25 percent); white, whole-grain corn meal (25 percent); and yellow, degermed corn meal (50 percent). Sixty-nine percent of the yellow, degermed corn meal is considered to be enriched. Since enriched, degermed corn meal makes up 50 percent of the nutrient composite, a factor of 0.345 is used to account for the percentage of enriched corn meal. A value of 1.0 minus the factor used to account for enrichment (0.345) or 0.655 is the factor used to account for the unenriched corn meal.

Rice Products

The historical files for rice products contain estimates of added thiamin, niacin, and iron by year for enriched rice, 1943-70 and of riboflavin for the 1943-57.[2] Beginning in 1970 dynamic or active files are available for rice products. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity. Estimates from 1998 and later years reflect folate fortification policy for rice.

White rice in the food supply is reflected as a single commodity item. Beginning in 1970, 95 percent of the rice is estimated as enriched, and 5 percent is estimated as unenriched based on information from USA Rice.

Breakfast Cereals

The historical files for ready-to-eat (RTE) cereals contain estimates of added thiamin, riboflavin, niacin, and iron from 1939-73 and vitamin B_6 and vitamin B_{12} from 1966-73. There are no historical files for cooked cereals. Beginning in 1974 dynamic or active files are available for both RTE and cooked cereals. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity.

Ready-to-eat cereals in the food supply are reflected as a nutrient composite of corn, wheat, rice, oats, and mixed-grain cereals. **Cooked cereals** in the food supply are reflected as a nutrient composite of farina and rolled oats; quick-cooking cereals like quick oats; instant cereals including *CREAM OF WHEAT AND CREAM OF RICE;* instant oatmeal; other/mixed-grain cereals like *MAYPO*, an oat- and mixed-grain cereal; and *MALT-O-MEAL*, a wheat and barley mix (*5*). For each type of cereal, 85 percent of the quantity is estimated to be fortified for the years 1974-78, and 92 percent is estimated for the years 1979-97.

[2]The riboflavin enrichment policy was stayed in 1958 in part because of the yellow coloring that added riboflavin gave to the rice.

Estimates of Fortification/Enrichment by Food Supply Commodity (Grains)

Estimates of added nutrients are based on standards of identity for cereal flours and related products as specified in the Food and Drug Administration's Code of Federal Regulations (*7,12,15*) unless otherwise noted. The inclusion of optional nutrients, such as calcium and vitamin D, were not reflected in these estimates. Nutrient data used to determine the nutrient contribution from fortification or enrichment are from USDA's Nutrient Data Laboratory, Standard Reference 13 (*11*). Tables 2 through 4 show the Federal enrichment standards, the pre-enrichment nutrient levels, the levels of nutrients added through enrichment (or fortification), and the total nutrient levels (pre-enrichment plus enrichment levels) for each grain-based commodity discussed. Values may not add to the standard because of rounding. In some cases, the enriched product may not meet the Federal enrichment standards for one or more of the nutrients presented.

Table 2. Wheat Flour Products

White Flour

Federal enrichment standard by year per pound of nutrient for white flour

Nutrient	1942	1943	1973	1978	1983	1998
Thiamin (mg)	1.66 - 2.5	2.0 - 2.5	2.9	2.9	2.9	2.9
Riboflavin (mg)	1.2 - 1.8	1.2 - 1.5	1.8	1.8	1.8	1.8
Niacin (mg)	6 - 24	16 - 20	24	24	24	24
Folic acid (mcg)						700
Iron (mg)	6 - 24	13 - 16.5	40 (standard stayed)	13 - 16.5	20	20

Levels of nutrients, pre-enrichment per 100 grams (pound) of white flour

Nutrient	1974–present (per pound)
Iron (mg)	1.2 (5.5)
Thiamin (mg)	0.12 (0.54)
Riboflavin (mg)	0.04 (0.18)
Niacin (mg)	1.3 (5.9)
Folate (mcg)	26.0 (118)

Level of nutrients added through enrichment per 100 grams (pound)[1] of white flour

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998 (per pound)
Iron (mg)	1.7 (7.7)	3.5 (15.8)	3.5 (15.8)
Thiamin (mg)	0.7 (3.0)	0.7 (3.0)	0.7 (3.0)
Riboflavin (mg)	0.5 (2.0)	0.5 (2.05)	0.5 (2.05)
Niacin (mg)	4.7 (21.0)	4.7 (21.0)	4.7 (21.0)
Folate (mcg)	NA[2]	NA	128.0 (581.0)

[1]Prior to 1974, the following levels of nutrients per pound were added to flour: 1942-48— iron, 2.4 mg; thiamin, 1.4 mg; riboflavin, 0.99 mg; and niacin, 1.9 mg; 1949-73— iron, 9.4 mg; thiamin, 1.7 mg; riboflavin, 0.99 mg; and niacin, 12.0 mg (2).
[2]Not applicable.

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of white flour

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998 (per pound)
Iron (mg)	2.9 (13.0)	4.6 (21.1)	4.6 (21.1)
Thiamin (mg)	0.8 (3.6)	0.8 (3.6)	0.8 (3.6)
Riboflavin (mg)	0.5 (2.2)	0.5 (2.2)	0.5 (2.2)
Niacin (mg)	5.9 (26.8)	5.9 (26.8)	5.9 (26.8)
Folate (mcg)	26.0 (118)	26.0 (118)	154 (700)

Table 2. Wheat Flour Products (Cont'd)

Semolina

Levels of nutrients, pre-enrichment, per 100 grams (pound) of semolina*

Nutrient	1974–present (per pound)
Iron (mg)	1.2 (5.6)
Thiamin (mg)	0.3 (1.3)
Riboflavin (mg)	0.08 (0.4)
Niacin (mg)	3.3 (15.0)
Folate (mcg)	72.0

*The standard of identity for semolina is the same as that for whole wheat flour.

Level of nutrients added through enrichment per 100 grams (pound) of semolina

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998 (per pound)
Iron (mg)	1.6 (7.4)	3.1 (14.2)	3.1 (14.2)
Thiamin (mg)	0.5 (2.4)	0.5 (2.4)	0.5 (2.4)
Riboflavin (mg)	0.5 (2.2)	0.5 (2.2)	0.5 (2.2)
Niacin (mg)	2.7 (12.2)	0.7 (12.2)	0.7 (12.2)
Folate (mcg)	NA	NA	82.0 (372.3)

Total level of nutrients added (pre-enrichment and enrichment) per 100 grams (pound) of semolina

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998 (per pound)
Iron (mg)	2.9 (13.0)	4.4 (20.0)	4.4 (20.0)
Thiamin (mg)	0.8 (3.7)	0.8 (3.7)	0.8 (3.7)
Riboflavin (mg)	0.6 (2.6)	0.6 (2.6)	0.6 (2.6)
Niacin (mg)	6.0 (27.2)	6.0 (27.2)	6.0 (27.2)
Folate (mcg)	NA	NA	154 (700)

Table 3. Corn Products

Corn Grits

Federal enrichment standard by year per pound of nutrient for corn grits* and corn meal

Nutrient	1947	1998
Thiamin (mg)	2.0 - 3.0	4.5
Riboflavin (mg)	1.2 - 1.8	2.0 - 3.0
Niacin (mg)	16 - 24	16 - 24
Folic acid (mcg)	NA	700 - 1000
Iron (mg)	13 - 26	13 - 26

*Standard of identity for corn grits was deleted from Code of Federal Regulations in 1996.

Levels of nutrients, pre-enrichment, per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970–present (per pound)
Iron (mg)	1.0 (4.5)
Thiamin (mg)	0.13 (0.6)
Riboflavin (mg)	0.04 (0.18)
Niacin (mg)	1.2 (5.4)
Folate (mcg)	5 (22.7)

Level of nutrients added through enrichment per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	2.9 (13.2)	2.9 (13.2)
Thiamin (mg)	0.5 (2.3)	0.5 (2.3)
Riboflavin (mg)	0.3 (1.5)	0.3 (1.5)
Niacin (mg)	3.8 (17.1)	3.8 (17.1)
Folate (mcg)	NA	182.0 (826.3)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.9 (17.8)	3.9 (17.8)
Thiamin (mg)	0.6 (2.9)	0.6 (2.9)
Riboflavin (mg)	0.4 (1.7)	0.4 (1.7)
Niacin (mg)	5.0 (22.5)	5.0 (22.5)
Folate (mcg)	5.0 (22.7)	187.0 (849.0)

Table 3. Corn Products (Cont'd)

Corn Meal

Levels of nutrients, pre-enrichment, per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970–present (per pound)
Iron (mg)	1.1 (5.0)
Thiamin (mg)	0.1 (0.6)
Riboflavin (mg)	0.05 (0.23)
Niacin (mg)	1.0 (4.5)
Folate (mcg)	48 (218.0)

Level of nutrients added through enrichment per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.0 (13.8)	3.0 (13.8)
Thiamin (mg)	0.6 (2.6)	0.6 (2.6)
Riboflavin (mg)	0.4 (1.6)	0.4 (1.6)
Niacin (mg)	4.0 (18.3)	4.0 (18.3)
Folate (mcg)	NA	139.0 (631.0)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	4.1 (18.9)	4.1 (18.9)
Thiamin (mg)	0.7 (3.2)	0.7 (3.2)
Riboflavin (mg)	0.4 (1.8)	0.4 (1.8)
Niacin (mg)	5.0 (22.9)	5.0 (22.9)
Folate (mcg)	48.0 (218.0)	187.0 (849.0)

Table 4. Rice

Federal enrichment standard by year per pound of nutrient for rice

Nutrient	1957	1998
Thiamin (mg)	2.0 - 4.0	2.0 - 4.0
Riboflavin (mg)	1.2 - 2.4	1.2 - 2.4 (stayed in 1958)
Niacin (mg)	16 - 32	16 - 32
Folic acid (mcg)		700 - 1400
Iron (mg)	13 - 26	13 - 26

Levels of nutrients, pre-enrichment, per 100 grams (pound) of rice

Nutrient	1970–present (per pound)
Iron (mg)	0.8 (3.6)
Thiamin (mg)	0.07 (.32)
Niacin (mg)	1.6 (7.3)
Folate (mcg)	8.0 (36.3)

Level of nutrients added through enrichment per 100 grams (pound) of rice

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.5 (16.0)	3.5 (16.0)
Thiamin (mg)	0.5 (2.3)	0.5 (2.3)
Niacin (mg)	2.6 (11.8)	2.6 (11.8)
Folate (mcg)	NA	223.0 (1012.0)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of rice

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	4.3 (19.6)	4.3 (19.6)
Thiamin (mg)	0.6 (2.6)	0.6 (2.6)
Niacin (mg)	4.2 (19.1)	4.2 (19.1)
Folate (mcg)	8.0 (36.3)	231.0 (1049)

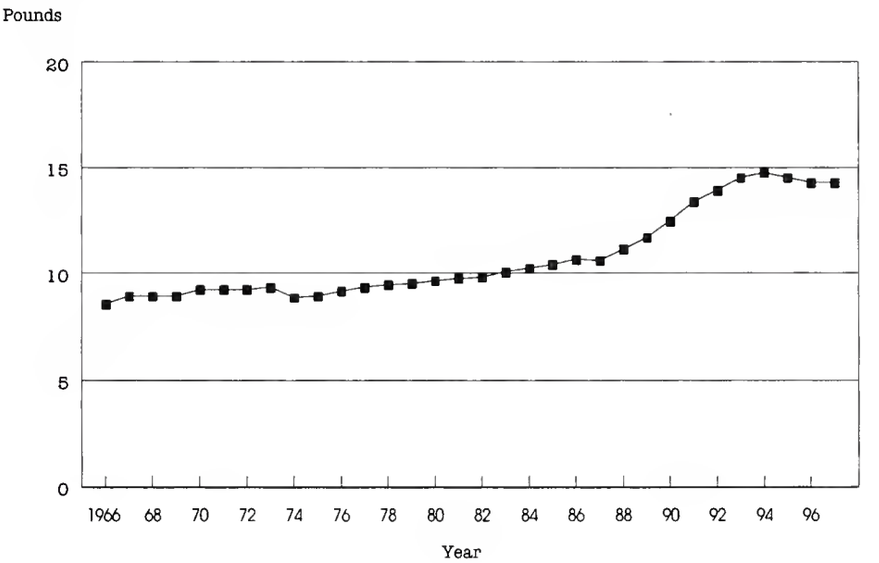
Federal Enrichment/Fortification Standards for Breakfast Cereals

Ready-to-Eat Cereals

Consumption

Ready-to-eat (RTE) cereals are an important part of the American diet. They are plentiful, readily available, affordable, made from a wide variety of grains, and easily consumed as meals or snacks. They are a popular food item for many Americans, especially children. On a given day, almost one-half of America's children 9 years old and under eat some kind of RTE cereal (*10*). RTE cereal consumption increased from 8 pounds per person in 1966 to 14.3 pounds per person in 1997 (fig. 1) (*8,9*). Because of their popularity and the nature of cereal grains, RTE cereals are an excellent vehicle for nutrient fortification. As such, RTE cereals make important contributions to the total amount of many vitamins and minerals in the U.S. food supply—especially the B vitamins (thiamin, riboflavin, niacin, vitamin B_6, and folate), vitamins A and C, iron, and zinc.

Figure 1. Ready-to-eat cereal consumption, 1966-97



Fortification

RTE cereals have been fortified since the 1940's, but per capita information on consumption of total RTE cereals has been available only since 1966 from USDA's Economic Research Service. During the past 30 years, the percentage of RTE cereal fortified in the food supply has increased from 16 percent to 92 percent *(1,4)*.
A consensus of the American Medical Association, the Food and Nutrition Board of the National Academy of Sciences (NAS), and the expert panel on Food Safety and Nutrition of the Institute of Food Technologists determined that a serving of breakfast cereal should provide 25 percent of the U.S. Recommended Daily Allowances (U.S. RDA) of vitamins and minerals common to cereals—most of the

same nutrients recommended by NAS for fortification. Although fortification varies from product to product, the cereal manufacturers' general approach has been to fortify cereals with 25 percent per serving of the U.S. RDA. Based on this information, as well as the Food and Drug Administration's Code of Federal Regulations, the food supply RTE cereal fortification data were adjusted to reflect a fortification level of 25 percent for thiamin, niacin, riboflavin, vitamins B_6, C, and A, folate, iron, and zinc (table 5).

Serving size regulation was a factor in determining the amount of a nutrient available from these cereals. From 1973 through 1992, prior to the implementation of the Nutrition Labeling and Education Act (NLEA) of 1990, a 1-ounce (28.35 grams) serving was the portion size most manufacturers used and listed on nutrition labels of RTE cereals. With the implementation of the NLEA for breakfast cereals in 1993, serving sizes became based on cereal density[3] for consistency and because, generally, less dense cereals (e.g., puffed rice) are consumed in amounts greater than 1 cup and more dense cereals (e.g., All Bran) are consumed in quantities less than 1 cup (*5,14*). Based on this serving size information, an average serving size of 30 grams has been used to estimate nutrient contributions from all fortified cereals in the U.S. food supply from 1993 through 1997.

Table 5. Fortification recommendations for ready-to-eat cereals

Nutrient	U.S. RDA	1974-92 amount per pound	1993-97 amount per pound
Thiamin (mg)	1.5	6.0	5.7
Niacin (mg)	20	80	76
Riboflavin (mg)	1.7	6.8	6.4
Vitamin A (RE)	1000	4000	3780
Vitamin C (mg)	60	240	227
Iron (mg)	18	72	68
Vitamin B_6 (mg)	2	8	7.6
Folate (mcg)	400	1600	1512
Zinc (mg)	15	60	57

RTE breakfast cereals have made important contributions to the total amount of thiamin, riboflavin, niacin, and iron in the U.S. food supply since the enrichment of cereal grains began in the early 1940's (figs. 2a and 2b). This enrichment of cereal grains and their fortification with folate, vitamins B_6, A, and C, and zinc in the later years of the series account for an appreciable amount of the total of each of these nutrients in the food supply (figs. 2a, 2b, 2c). Also, the marked increase in the B vitamins and iron and the added contributions from folate, vitamins A and C, and zinc beginning in 1974 (figs. 2a, 2b, 2c) reflect changes in Federal fortification policy and labeling criteria.

[3]Portion sizes of cereals based on density: 15 grams (light-weight cereals: <20 grams per cup), 20 grams (medium-weight cereals: 20-43 grams per cup), 55 grams (heavy-weight cereals: >43 grams per cup).

Figure 2a. Fortification trends of ready-to-eat cereals for niacin, iron, and zinc, 1940-97

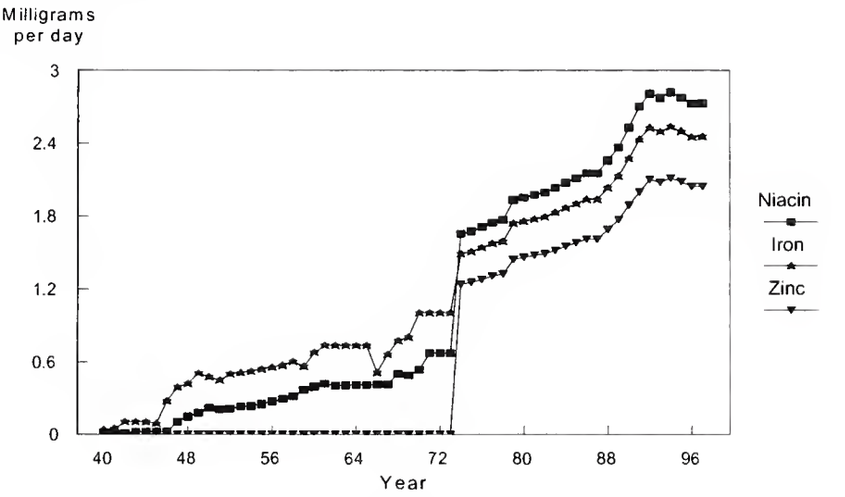


Figure 2b. Fortification trends of ready-to-eat cereals for thiamin, riboflavin, and vitamin B_6, 1940-97

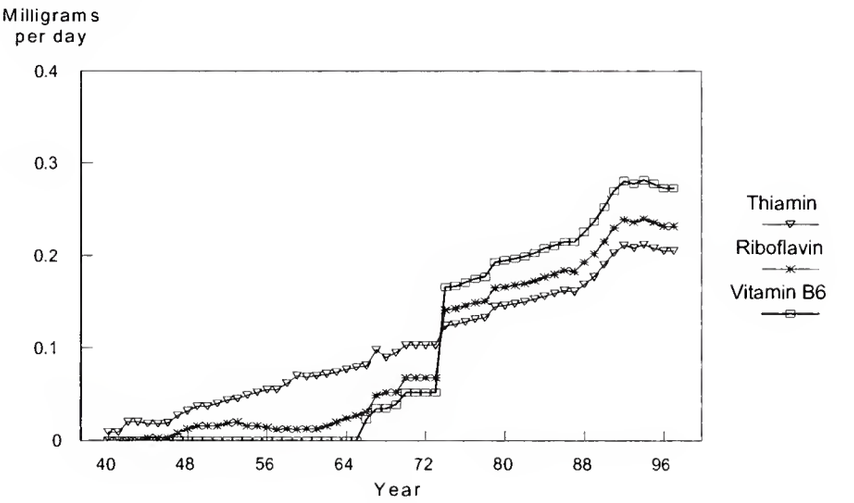
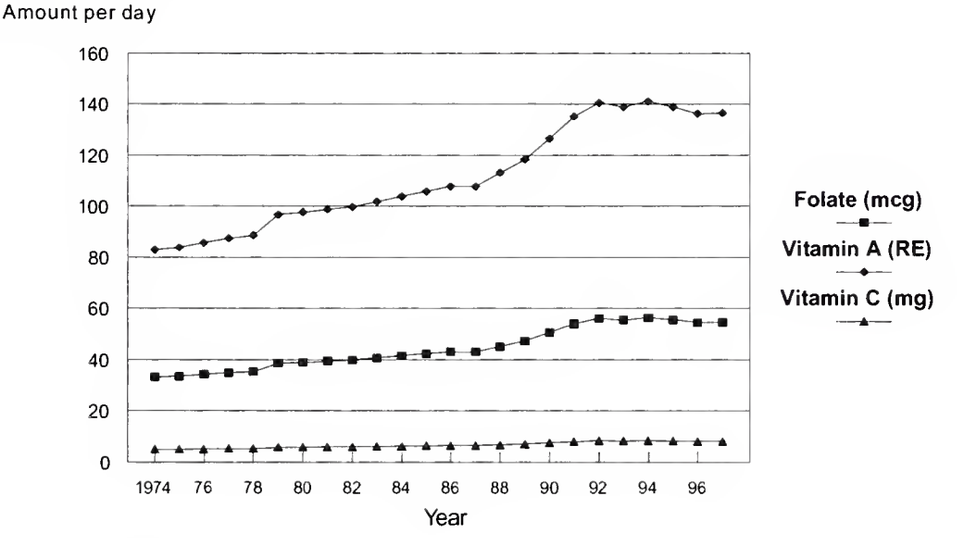
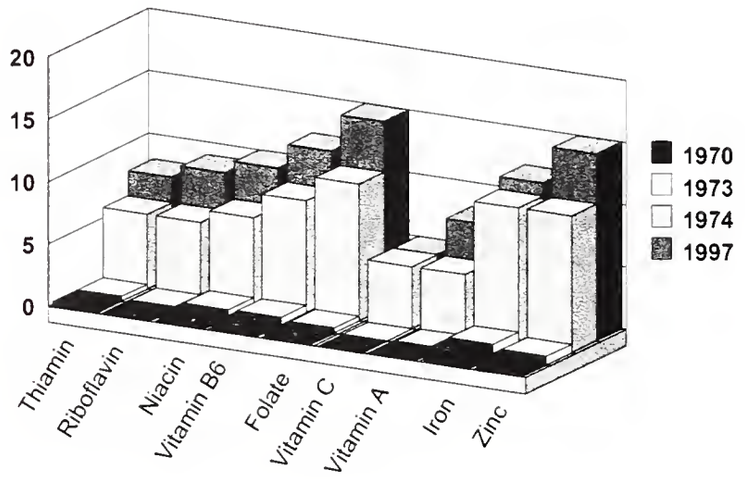


Figure 2c. Fortification trends of ready-to-eat cereals for folate, vitamin A, and vitamin C, 1974-97



The nutrient contributions from RTE cereals for added nutrients since the mid-1970's are presented in fig. 3. In 1970, thiamin, riboflavin, niacin, vitamin B_6, and iron each contributed less than 1 percent of the total amount in the food supply. By 1997, RTE cereal contributions of thiamin, riboflavin, niacin, vitamin B_6, and iron ranged from 8 to 12 percent of the total amount of these nutrients available in the food supply; folate and zinc from RTE cereal each contributed 15 percent; vitamins A and C from RTE cereal contributed 8 and 5 percent, respectively, to the total food supply.

Figure 3. Nutrient contributions from ready-to-eat cereals in the U.S. food supply, 1970, 1973, 1974, and 1997



Cooked Cereals

FDA's enrichment standards for farina have remained unchanged since they were established in the early 1970's (*6,13*) and are: thiamin 2.0-2.5 mg, riboflavin 1.2-1.5 mg, niacin 16-20 mg, iron 13 mg. Although instant cereals and other/mixed-grain cooked cereals do not have established standards for enrichment, most cereal manufacturers voluntarily enrich the cereals. FDA enrichment standards for farina are the basis for the addition of thiamin, riboflavin, niacin, and iron to both instant and other/mixed-grain cereals in the food supply. However, the cereal "Nutrition Facts" labels show that the levels of these nutrients more closely align with those as stated for the fortification of ready-to-eat-cereals—25 percent of the U.S. RDA per 1-ounce dry weight serving (*3,11*).

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APPENDIX B

Fatty Acids in the U.S. Food Supply, 1980-97

In this report, individual fatty acid nutrient values per capita per day and their contribution by food group are provided for 1980-97. Nutrient estimates for individual fatty acids reflect current food technologies and consumer demand for foods.

Fatty acids in the U.S. food supply are divided into three categories: saturated fatty acids (SFA), monounsaturated fatty acids (MUFA), and polyunsaturated fatty acids (PUFA) (table 1).

Table 1. Individual fatty acids in the U.S. food supply

Saturated	Monounsaturated	Polyunsaturated[1]
Butyric (4:0)	Palmitoleic (16:1)	Linoleic (18:2)
Caprioic (6:0)	Oleic (18:1)	Linolenic (18:3)
Caprylic (8:0)	Gadoleic (20:1)	Parinaric (18:4)
Capric (10:0)	Erucic (22:1)	Arachidonic (20:4)
Lauric (12:0)		Eicosapentaenoic[2] (20:5)
Myristic (14:0)		Clupandonic (22:5)
Palmitic (16:0)		Docosahexaenoic (22:6)
Stearic (18:0)		

[1]Omega-3 fatty acids are linolenic, parinaric, eicosapentaenoic, and docosahexaenoic; omega-6 fatty acics are linoleic and arachidonic acids.
[2]The common name is timnodonic.

• Individual SFAs are straight-chain fatty acids of variable carbon chain length with no double bonds between carbon atoms. Chain length varies from 8 to 18 carbon atoms. SFA are concentrated in dairy products; red meat and poultry; and palm, palm kernel, and coconut oils. The most prevalent saturated fatty acids in the American diet are palmitic (16:0) and stearic (18:0) acids. Levels of palmitic and stearic acids in the food supply remained relatively stable around 30 grams and 15 grams per capita per day, respectively, for the 1980-97 period (table 2). In 1997, the meat, poultry, and fish group accounted for 31 percent; dairy products, 25 percent; and fats and oils, 36 percent of the palmitic acid in the food supply (table 3). Stearic acid contributions were 28 percent, 22 percent, and 45 percent, respectively, from the meat, poultry, and fish group; dairy products; and fats and oils (table 3). From 1980 to 1997, contributions of palmitic and stearic fatty acid decreased from the meat, poultry and fish group and increased from the fats and oils group because of greater use of palm, palm kernel, and coconut oils in the baking industry.

• Individual MUFAs contain only one double bond. The predominant MUFA in foods is oleic acid (18:1). Oleic acid per capita per day in the food supply increased from 56 grams in 1980 to 62 grams in 1997. In 1997, fats and oils contributed 55 percent of this fatty acid to the food supply, with olive oil, canola oil, peanut oil, almonds, and avocados being the most concentrated food sources of oleic acid.

Table 2. Fatty acids, per capita per day in the U.S. food supply, 1980-97

Year	Saturated							
	Butyric	Caprioic	Caprylic	Capric	Lauric	Myristic	Palmitic	Stearic
	Grams							
1980	1.015	0.561	0.339	0.866	1.084	4.633	30.311	15.055
1981	1.008	0.555	0.337	0.857	1.074	4.599	30.103	14.974
1982	1.018	0.559	0.338	0.852	1.058	4.587	29.734	14.783
1983	1.048	0.574	0.343	0.872	1.055	4.709	30.469	15.140
1984	1.062	0.581	0.352	0.884	1.103	4.787	30.922	15.543
1985	1.078	0.587	0.360	0.895	1.156	4.889	31.603	15.959
1986	1.068	0.583	0.403	0.918	1.445	4.915	31.017	15.604
1987	1.075	0.584	0.395	0.908	1.380	4.810	30.421	15.171
1988	1.045	0.564	0.370	0.871	1.229	4.665	30.551	15.140
1989	1.027	0.552	0.358	0.849	1.157	4.523	29.771	14.707
1990	1.015	0.545	0.396	0.868	1.418	4.558	29.607	14.787
1991	1.012	0.545	0.423	0.886	1.607	4.623	30.047	15.125
1992	1.016	0.547	0.458	0.914	1.818	4.761	30.786	15.526
1993	1.019	0.548	0.454	0.912	1.797	4.749	31.102	15.822
1994	1.029	0.548	0.406	0.876	1.455	4.675	31.069	15.841
1995	1.008	0.535	0.403	0.866	1.471	4.622	30.634	15.538
1996	1.007	0.532	0.391	0.852	1.389	4.588	30.485	15.484
1997	1.010	0.534	0.391	0.852	1.377	4.544	30.218	15.156

Year	Monounsaturated			
	Palmitoleic	Oleic	Gadoleic	Eurcic
	Grams			
1980	3.294	56.106	0.342	0.073
1981	3.267	56.309	0.340	0.078
1982	3.190	55.943	0.333	0.072
1983	3.282	57.074	0.339	0.073
1984	3.305	58.618	0.342	0.082
1985	3.364	60.108	0.350	0.086
1986	3.276	59.467	0.341	0.083
1987	3.178	58.862	0.340	0.087
1988	3.152	59.546	0.349	0.081
1989	3.056	58.126	0.349	0.087
1990	3.000	59.516	0.347	0.094
1991	2.998	61.361	0.357	0.095
1992	3.092	62.740	0.371	0.096
1993	3.068	64.682	0.366	0.087
1994	3.139	64.704	0.412	0.119
1995	3.139	62.954	0.406	0.110
1996	3.131	62.648	0.404	0.125
1997	3.099	62.428	0.413	0.136

(Cont'd)

Table 2. Fatty acids, per capita per day in the U.S. food supply, 1980-97 (Cont'd)

Year	Polyunsaturated						
	Linoleic	Linolenic	Parinaric	Arachidonic	Timmodonic	Clupandonic	Docosahexaenoic
	Grams						
1980	25.899	2.489	0.002	0.216	0.035	0.011	0.056
1981	26.293	2.535	0.003	0.214	0.036	0.011	0.056
1982	26.287	2.515	0.003	0.209	0.036	0.011	0.056
1983	27.192	2.623	0.003	0.211	0.036	0.011	0.056
1984	27.251	2.598	0.003	0.212	0.038	0.012	0.060
1985	28.036	2.661	0.003	0.212	0.038	0.012	0.059
1986	27.234	2.509	0.003	0.209	0.036	0.012	0.059
1987	27.543	2.543	0.003	0.211	0.035	0.013	0.060
1988	28.468	2.530	0.003	0.213	0.034	0.013	0.059
1989	27.729	2.413	0.003	0.213	0.035	0.014	0.062
1990	28.225	2.513	0.003	0.210	0.035	0.014	0.062
1991	28.936	2.593	0.003	0.211	0.036	0.015	0.064
1992	29.155	2.626	0.003	0.216	0.037	0.016	0.066
1993	29.542	2.642	0.003	0.216	0.035	0.015	0.065
1994	29.146	2.802	0.004	0.219	0.042	0.016	0.075
1995	28.892	2.768	0.004	0.219	0.043	0.016	0.076
1996	28.624	2.729	0.004	0.218	0.043	0.016	0.076
1997	29.223	2.867	0.004	0.218	0.042	0.016	0.076

Table 3. Fatty acid food sources and percent contributions, 1980-97[1]

Fatty acid	Key food sources	1980-84	1985-89	1990-94	1995-97
			Percent		
Butyric	Dairy	85	86	85	86
	Butter	15	14	15	14
Caprioic	Dairy	84	84	83	83
	Butter	16	16	17	17
Caprylic	Dairy	81	75	64	68
	Butter	15	14	12	12
	Salad & cooking oils	3	10	14	11
Capric	Dairy	73	71	69	71
	Butter	13	13	13	13
	Red meat	11	10	8	8
Lauric	Dairy	63	54	40	46
	Fats & oils	25	36	41	34
	Other	12	10	19	20
Myristic	Dairy	60	60	59	60
	Fats & oils	19	21	22	21
	Red meat	19	16	14	15
Palmitic	Meat, poultry, & fish	35	32	30	31
	Dairy	25	25	24	25
	Fats & oils	34	36	37	36
	Other	6	7	9	8
Stearic	Meat, poultry, & fish	34	31	28	28
	Dairy	22	22	21	22
	Fats & oils	40	42	45	45
	Other	4	5	6	5
Palmitoleic	Meat, poultry, & fish	59	57	57	57
	Red meat	46	42	39	37
	Dairy	20	22	22	21
	Fats & oils	17	18	16	17
	Other	4	3	5	5
Oleic	Meat, poultry, & fish	32	28	25	25
	Fats & oils	49	52	55	55
	Dairy	12	12	11	11
	Other	7	8	9	9

[1]Totals may not add to 100 because of rounding.

Table 3. Cont'd

Fatty acid	Key food sources	1980-84	1985-89	1990-94	1995-97
			Percent		
Gadoleic	Meat, poultry, & fish	51	51	52	52
	Fats & oils	29	26	26	28
	Legumes, nuts, & soy	14	16	15	13
	Other	6	7	7	7
Erucic	Spices and seeds[2]	79	81	79	72
	Meat, poultry, & fish	19	16	16	16
	Fats & oils	0	1	4	6
	Other	2	2	1	1
Linoleic	Fats & oils	71	71	70	70
	Cooking oils	48	48	46	47
	Meat, poultry, & fish	15	14	13	13
	Other	14	15	17	17
Linolenic	Fats & oils	59	59	59	62
	Cooking oils	44	43	43	48
	Meat, poultry, & fish	19	18	16	15
	Dairy	14	14	13	12
	Other	8	9	12	11
Parinaric	Fish	100	100	100	100
Arachidonic	Meat, poultry, & fish	74	75	77	78
	Eggs	25	24	22	21
Timnodonic[3]	Meat, poultry, & fish	96	96	96	97
	Fish	65	72	77	80
	Eggs	4	4	4	3
Clupandonic	Meat, poultry, & fish	100	100	100	100
	Fish	31	34	33	35
	Poultry	64	62	64	62
Docosahexaenoic[4]	Meat, poultry, & fish	80	82	85	87
	Fish	42	43	44	49
	Eggs	20	18	15	13

[2]Mostly mustard seed.
[3]EPA.
[4]DHA.

As with the two major SFAs (i.e., palmitic and stearic), contributions of oleic acid from the meat, poultry, and fish group are less in 1997 than in earlier years, because of higher contributions of oleic acid from the fats and oils group.

• Individual PUFAs contain two or more double bonds. There are two classes of PUFAs: omega-6 and omega-3. The predominant PUFA in the American diet is linoleic acid (18:2n-6). Key sources of linoleic acid are vegetable seeds and the oils they produce. In 1997, fats and oils accounted for 70 percent of this fatty acid in the food supply, with salad and cooking oils providing over half of this total. These contributions remained relatively stable during the 1980-97 period; however, linoleic acid levels increased from 26 grams per capita per day in 1980 to 29 grams per capita per day in 1997.

Linoleic (18:2) and linolenic (18:3) acid are the two dietary essential fatty acids because they cannot be synthesized by humans, and failure to include recommended levels of these essential fatty acids in the diet can result in deficiency symptoms. Linoleic and linolenic acids are the parent compounds of the omega-6 and omega-3 fatty acids, respectively. These families of fatty acids are also precursors of eicosanoids (prostaglandins, thromboxanes, and leukotrienes), which are hormone-like compounds that regulate blood pressure, heart rate, vascular dilation, blood clotting, lipolysis, and immune response (*2*). Omega-3 fatty acids of nutritional interest are α-linolenic acid and its derivatives—eicosapentaenoic acid (EPA)(20:5) and docosahexaenoic acid (DHA)(22:6). In the American diet, main food sources of linolenic acid are salad and cooking oils and margarine and shortening made from canola or soybean oil. From 1980 to 1997, linolenic acid per capita per day in the food supply increased slightly from 2.5 grams to 2.9 grams. In 1997, fats and oils accounted for 62 percent of the linolenic acid in the food supply, a 3-percent increase from 1980. Fish is the primary source of EPA and DHA. In 1997, fish accounted for about 80 percent of the EPA and about 50 percent of the DHA. Since 1980, both the EPA and DHA levels from fish have increased somewhat as a result of the increase in per capita consumption of fish and the types of fish consumed. (table 4). Eggs are also a source of EPA and DHA, with DHA contributions decreasing over the period from 20 to 13 percent because of the decrease in egg consumption.

Table 4. Levels of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) in the U.S. food supply for fish, 1989-97

Year	Fish quantity	EPA	DHA
	Pounds per capita	*Grams*	*Grams*
1980-84	12.8	0.023	0.037
1985-89	14.8	0.026	0.043
1990-94	15.0	0.028	0.050
1995-97	14.8	0.034	0.060

Between 1980 and 1997, the ratio of omega-6 to omega-3 fatty acids in the food supply has fluctuated slightly, from 10.1:1 in 1980-84 to 10.0:1 in 1995-97 (table 5). This is much higher than the recommended ratio of 2.3:1 (*1*). Dietary recommendations have focused on increasing consumption of the highly unsaturated omega-3 fatty acids, EPA and DHA, to achieve optimal health benefits. In 1997, EPA and DHA contributed little to the total fat available from the food supply: 0.042 grams and 0.076 grams per capita per day, respectively.

Table 5. Ratio of omega-6 (n-6) to omega-3 (n-3) fatty acids in the U.S. food supply, 1980-97

Year	n-6[1]	n-3[2]	n-6:n-3
	Grams	*Grams*	
1980-84	26.761	2.646	10.1:1
1985-89	27.981	2.629	10.7:1
1990-94	29.201	2.741	10.7:1
1995-97	29.131	2.911	10.0:1

[1]Includes linoleic and arachidonic acids.
[2]Includes linolenic, parinaric, timnodonic, and docosahexaenioc acids.

References for Appendix B

1. Kris-Etherton, P.M., Taylor, D.S., Yu-Poth, S., Huth, P., Moriarty, K., Fishell, V., Hargrove, R.L., Zhao, G., and Etherton, T.D. 2000. Polyunsaturated fatty acids in the food chain in the United States. *American Journal of Clinical Nutrition* 71(Suppl):179S-188S.

2. Mahan, L.K. and Escott-Stump, S. (Eds.). 1996. *Krause's Food, Nutrition and Diet Therapy* (9th ed.). W.B. Saunders Company, Philadelphia, PA.

Interactive Food Supply

The Interactive Food Supply, an on-line version of the Nutrient Content of the U.S. Food Supply, can be accessed at CNPP's home page: http://www.cnpp.usda.gov. This Internet-based version of the U.S. food supply allows the user to quickly calculate nutrient estimates and related information, such as nutrient fortifications and Food Guide Pyramid serving estimates. It will be updated periodically as new data become available.